DOCUMENT RESUME

ED 314 603 CE 053 946

AUTHOR	Stewart, David W.; And Others
TITLE	Problems Faced by Military Personnel in Pursuing Higher Education Programs: A Study with Recommendations.
INSTITUTION	American Association of Collegiate Registrars and Admissions Officers, Washington, D.C.; American Association of Community and Junior Colleges, Washington, D.C.; American Association of State Colleges and Universities, Washington, D.C.; American Council on Education, Washington, D.C.
SPONS AGENCY	Department of Defense, Washington, D.C.
PUB DATE	15 Nov 89
CONTRACT	MDA-903-88-C-0227
NOTE	161p.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC07 Plus Postage.
DESCRIPTORS	*Access to Education; Equivalency Tests; External Degree Programs; Higher Education; *Military Personnel; Nontraditional Education; *Nontraditional Students; *Student Records

ABSTRACT

This document contains five reports from a study that collected survey data on the practices and state trends affecting military personnel attending proprietary, private, and public postsecondary education institutions in 11 states and on the practices related to student transcript evaluation. The contents include "Introduction, State and Institutional Trends, Recommendations" (Stewart); "Transferability of Credits between Institutions" (Ludwig); "Articulation between Degree Programs" (Palmer); "Designation of Nontraditional Learning on Academic Transcripts" (Becraft); and "Research Summaries" (Ludwig, Palmer), which are five appendices. The following are among military factors that affect decision making about military personnel seeking postsecondary education opportunities: (1) the climate within the military is currently favorable toward postsecondary education; (2) military recruits' educational attainment is relatively high; (3) definitions of nontraditional learning are ambiguous; (4) the potential of credit by examination is unrealized; and (5) the postsecondary education community has enthusiastically accepted the Army/ACE Registry Transcript Service (AARTS). The following factors are also important: (1) the percentage of adult and part-time students entering postsecondary educational institutions is growing rapidly; (2) at too many institutions the prevailing assumption remains that the typical student is 18-25 years of age and is following a linear course of study; and (3) the quality control emphasis in postsecondary education may stiffen resistance to nontraditional programs that have a "diploma mill" image. The document includes a total of 105 references. The appendices provide summary information for methodology, findings, articulation agreements, campus contacts, and trascript evaluation, as well as numerous sample anonymous transcripts. (CML)

ED314603

PROBLEMS FACED BY MILITARY PERSONNEL IN PURSUING HIGHER EDUCATION PROGRAMS: A STUDY WITH RECOMMENDATIONS

A project authorized and funded by the Department of Defense (DoD) and awarded under Contract No. MDA 903-88-C-0227 to the American Council on Education (ACE) in consort with the American Association of State Colleges and Universities (AASCU), the American Association of Community and Junior Colleges (AACJC), and the American Association of Collegiate Registrars and Admissions Officers (AACRAO). Project Director: David W. Stewart (ACE). Coordinator of Research: Meredith J. Ludwig (AASCU). Chair of Advisory Committee: Henry A. Spille (ACE). Contract Officer: Lenore E. Saltman (DoD).

Project Working Group

David W. Stewart (ACE)
Henry A. Spille (ACE)
Eugene J. Sullivan (ACE)
Charles J. Andersen (ACE)
Meredith J. Ludwig (AASCU)
Allan Watson (AASCU)
James C. Palmer (AACJC)
Wayne E. Becraft (AACRAO)

Jacqueline E. Taylor, Administrative Assistant

Contents

"Introduction, State and Institutional Trends, Recommendations" by David W. Stewart

"Transferability of Credits Between Institutions" by Meredith J. Ludwig

"Articulation Between Degree Programs" by James C. Palmer

"Designation of Nontraditional Learning on Academic Transcripts" by Wayne E. Becraft

"Research Summaries" by Meredith J. Ludwig and James C. Palmer

CE053946

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it
☐ Minor changes have been made to improve reproduction quality

● Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

D Stewart

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

EXECUTIVE SUMMARY

PROBLEMS FACED BY MILITARY PERSONNEL IN PURSUING HIGHER EDUCATION PROGRAMS: A STUDY WITH RECOMMENDATIONS

Prepared under DoD Contract No. MDA 903-88-C-0027
November 15, 1989

Department of Defense (DoD) Contract No. MDA 903-88-C-0227 was obtained by the American Council on Education (ACE) in cooperation with three other associations: the American Association of Community and Junior Colleges (AACJC), the American Association of Collegiate Registrars and Admissions Officers (AACRAO), and the American Association of State Colleges and Universities (AASCU). The goal of the year-long effort was to examine, analyze, and make recommendations concerning problems faced by Military personnel in pursuing a college education while in the Military Services.

In addition to a comprehensive literature search, the project work group conducted two surveys. One concerned institutional practices and state trends affecting students who are Military Service members. The other was a study of transcript evaluation. Both surveys involved postsecondary education institutions or systems in the following states: California, Florida, Georgia, Illinois, Hawaii, Maryland, North Carolina, South Carolina, Texas, Virginia, and Washington. Public, private, and proprietary institutions were involved.

The project resulted in four reports as follows: (1) "Introduction, State and Institutional Trends, Recommendations" by David W. Stewart (ACE), (2) Transferability of Credits Between Institutions" by Meredith J. Ludwig (AASCU), (3) Articulation Between Degree Programs" by James C. Palmer (AACJC), and (4) Designation of Nontraditional Learning on Academic Transcripts" by Wayne E. Becraft (AACRAO).

Specific to the Military Services are these contextual factors driving decision making about Service members seeking postsecondary education opportunities: (1) a currently positive climate toward postsecondary education within the Military, (2) the higher educational attainments of today's Military recruits, (3) the ambiguous nature of definitions of nontraditional learning, (4) the surprisingly low profile of Servicemembers Opportunity Colleges (SOC) programs, (5) the unrealized potential of credit-by-examination programs, (6) the enthusiastic acceptance of the Army/ACE Registry Transcript Service (AARTS) by the postsecondary education community.

Not military-specific but affecting decision making related to Military Service students enrolled, or seeking enrollment in, colleges and universities are these factors: (1) the percentage of adult and part-time students entering postsecondary education institutions is growing rapidly, (2) at too many institutions the prevailing assumption remains that the typical student is between 18 and 25 years of age and is following a linear course of study, (3) the quality control emphasis in postsecondary education may stiffen resistance to nontraditional programs which sometimes have a "diploma mill" image.

Among the highlights of the project recommendations are these:

Postsecondary education institutions are urged to: (1) join SOC or adhere to SOC principles, (2) train their academic officials and advisors as well as their registrars in procedures and guidelines for evaluating nontraditional learning, (3) make their personnel aware of available tools for facilitating the transfer or enrollment of Military personnel.

Postsecondary education associations are urged to: (1) encourage their members to join SOC, (2) address issues relevant to military education in their annual meetings or other program activities, (3) develop standards for transcripting credit for the various types of nontraditional learning and model policy statements for program articulation, (4) develop new or expand existing workshops to assist institutions in understanding and using instruments to facilitate the assessment of nontraditional learning.

State governments and postsecondary education systems are urged to: (1) encourage institutions to appoint articulation and/or transfer of credit coordinators, (2) work more closely with Military Services and state advisory councils for military affairs, (3) develop program articulation policies that do not close out the option of recognizing credit presented by nontraditional students, (4) encourage institutions to join SOC.

DoD and the Military Services are urged to: (1) train ESOs and counselors in use of AARTS and expand its use within the Military, (2) give ESOs incentives to increase use of credit by examination and other alternative methods of earning credit by their clients, (3) inform members of the Military Services of the activities of legal and illegal diploma mills whose credits will not be accepted by properly accredited colleges and universities, and (4) convene an annual conference at which matters of concern to the Military and postsecondary education institutions would be discussed.

The project work group believes that the following projects of additional research would be useful: (1) a continuing project of identifying patterns of transfer or attempted transfers by Military (and other) students, (2) a survey of chief executive officers of non-SOC institutions that would obtain their reaction to SOC policies and practices, (3) a study that would address institutional fears that acceptance of military and other forms of nontraditional credit may diminish the quality or degrees and result in loss of income to the institution.

ADVISORY COMMITTEE MEMBERS

Donald J. Breckon
President
Park College
Parkville, Missouri

Robert J. Grymes, Jr.
Dean of Instructional
and Student Services
Tidewater Community College
Portsmouth, Virginia

David T. Kelly
Director of Institutional Certification
Texas Higher Education Coordinating Board
Austin, Texas

Thurston E. Manning
President
Council on Postsecondary
Accreditation
Washington, D.C.

James R. Mingle
Executive Director
State Higher Education
Executive Officers
Denver, Colorado

Jack Yena
President
Johnson and Wales University
Providence, Rhode Island

Valeria P. Fleming
Professor of Biology
Fayetteville State University
Fayetteville, North Carolina

Duconz Hancock
Registrar
Troy State University at
Fort Benning
Fort Benning, Georgia

Frederick Kintzer
Professor of Higher Education
Santa Monica, California

T. Benjamin Massey
Chancellor
The University of Maryland,
University College
College Park, Maryland

Henry A. Spille (Chairman)
Vice President and Director
The Center for Adult Learning
and Educational Credentials
Washington, D.C.

Alternate Representatives:

Barbara Wells-Mayo
Associate Vice President of
Student Services
The University of Maryland,
University College
College Park, Maryland

Christopher T. Del Sesto
Vice President and Treasurer
of the General Council
Johnson and Wales University
Providence, Rhode Island

INTRODUCTION, STATE AND INSTITUTIONAL TRENDS, RECOMMENDATIONS

By David W. Stewart, Project Director

Prepared under Department of Defense (DoD) Contract No. MDA 903-88-C-0227 awarded to the American Council on Education (ACE) in consort with the American Association of State Colleges and Universities (AASCU), the American Association of Community and Junior Colleges (AACJC), and the American Association of Collegiate Registrars and Admissions Officers (AACRAO)

November 15, 1989

Problems faced by military personnel pursuing a college education while members of the armed forces are the focus of this study, a project authorized under a contract awarded by the Department of Defense (DoD) to the American Council on Education (ACE) which has administered the project in cooperation with the American Association of State Colleges and Universities (AASCU), the American Association of Community and Junior Colleges (AACJC), and the American Association of Collegiate Registrars and Admissions Officers (AACRAO). The project working group included representatives from all four associations.

An eleven-person Advisory Committee with representation from a wide range of interests involving postsecondary education and the Military was appointed and met twice as the project was implemented. This group assisted the project staff by identifying sources of information, suggesting approaches to key project tasks, reviewing the project work plan, and critiquing a draft of the project report.

Four reports specified under terms of the contract are incorporated in this study. These are "State and Institutional Trends in Accepting Traditional and Nontraditional Educational Credits" by David W. Stewart (ACE), "Transferability of Credits Between Institutions" by Meredith Ludwig (AASCU), "Articulation Between Degree Programs" by James Palmer (AACJC), and "Designation of Nontraditional Learning on Academic Transcripts" by Wayne Becraft (AACRAO). Summaries of the research projects undertaken by the working group are also included.

OBJECTIVES

Three objectives, as developed by the Department of Defense, were addressed by the work group that was assembled to implement the project authorized under the DoD contract. These objectives

1. To provide an information base on specified topics of importance to the Military Services Voluntary Continuing Education Program.
2. To assess practices and trends as they relate to the DoD Voluntary Continuing Education Programs in: (1) transferability, i.e., (acceptance and application) of credits, (2) nontraditional learning, (3) transcripting of nontraditional learning, and (4) mix of non-traditional and traditional learning.
3. To provide DoD with action recommendations in the topic areas.

PROBLEM

The problem, as defined by the Department of Defense, has two major dimensions:

1. Military Service personnel too often find that they cannot transfer credits between postsecondary education institutions.
2. Appropriate articulation between degree programs often does not exist.

To this might be added a third implicit problem, namely an unease in both the Military and postsecondary education communities about the designation and meaning of credit for nontraditional learning on academic transcripts.

A further underlying problem is that the information base for topics of importance to the Military Services voluntary education program is inadequate and out-of-date. Moreover, college and university personnel frequently cannot make appropriate evaluations because of lack of experience or inadequate records provided by service members. Military educators do not always have sufficient knowledge of the ground rules that apply in academic program matriculation.

VOLUNTARY EDUCATION PROGRAMS IN THE MILITARY

Voluntary education programs for military personnel are defined by the Department of Defense [Directive No. 1322.8] as those programs of study in which service members elect to participate. By providing assistance for some such programs, DoD intends to provide opportunities for Service members to achieve educational, vocational, and career goals. Voluntary education programs at the post-secondary education level are the focus of this study. Current credit program enrollments generated by the voluntary education programs stand at more than 700,000, according to DoD.

RESEARCH

Collectively, the associations working on this study have a well-developed survey research capacity. Tapped during the course of the project were the resources of ACE's Division of Policy Analysis and Research, AACJC's Office of Research and Data Collection, and AASCU's Office of Association Research. AACRAO's extensive network of members whose daily work involves the processing of military records and transcripts was also put to full use. The research effort of the project was coordinated by AASCU's Dr. Meredith Ludwig.

Three major research efforts were undertaken by the working group. These were: (1) the initial literature review, (2) an empirical study of the process of evaluating transcripts at two- and four-year institutions, and (3) interviews with contacts at participating institutions. A review of the literature used by the authors is included with each separate issue report.

Literature Review

A thorough search of all existing literature relevant to project objectives was conducted. The goal of this research was to identify (1) information already available and (2) gaps in information that needed to be filled by means of surveys or interviews.

Members of the Advisory Committee were extremely helpful in suggesting sources of information that might otherwise have been overlooked. The Department of Defense, too, provided many helpful documents. Dr. Ludwig of the project work group did a computerized search of materials in the Educational Resources Information Center (ERIC). This included not only journal articles but also unpublished materials including speeches, conference presentations, staff research papers and the like. The materials so collected were shared with all members of the project work group.

Included at the end of each of the project-sponsored reports is a list of references used by the author.

Telephone Survey of Policies and Practices

Under project auspices, a survey of articulation policies and guidelines operating within systems, states, or local or regional consortia was conducted.

The initial step was to obtain copies of such agreements in effect within the eleven surveyed states (California, Florida, Georgia, Illinois, Hawaii, Maryland, North Carolina, South Carolina, Texas, Virginia, and Washington). Then, follow-up phone calls were made by the project staff to individuals within each state who had responsibility for, or knowledge about, such policies and guidelines.

Results of this survey appear in the project "Research Summaries" section.

Transcript Evaluation Study

A group of institutions in the same eleven states involved in the telephone survey were asked to participate in a study of transcript evaluation. The chief executive officers of some 85 institutions designated a person to participate by completing a questionnaire and transcript evaluation exercise. Included in the survey group were four-year colleges and universities, two-year community and junior colleges, and proprietary colleges.

Survey forms were sent to each of these individuals, all of whom were identified as having primary responsibility at the institution for the evaluation of transcripts. Of the persons surveyed, 66 responded by returning usable questionnaires. A project staff member then telephoned each respondee to confirm data and expand the base of information obtained.

Survey respondents were asked to evaluate for credit the educational experiences of military students whose prototype records appeared in transcripts attached to the survey. Each such transcript represented a typical cluster of educational experiences that military students bring to receiving institutions. The prototype transcripts were developed and refined in a pilot test conducted with transcript evaluators from institutions in or near Washington, D.C.

A detailed explanation of the transcript evaluation study, including methodology and results, appears in the "Research Summaries" section of this report.

DEFINITIONS

Much of the substance of this study involves analysis of the concepts and processes that are implicit in these terms: (1) credit, (2) transfer, (3) articulation, and (4) nontraditional learning. Consequently, an explanation of these academic referents is in order.

Credit

College credit is a kind of academic currency. Semester credit hours and quarter credit hours are the two most commonly used systems for measuring and recording course work and/or learning outcomes. Definitions of credit hours are not rigid, but these guideline statements would be considered acceptable by most American colleges, universities, and recognized accrediting bodies.

Semester credit hours are based on the semester calendar which usually extends for about fifteen weeks. One semester credit hour normally signifies fifteen hours of classroom contact plus at least thirty hours of outside preparation or the equivalent. For laboratory work, one semester credit hour normally signifies thirty hours of laboratory, plus necessary outside preparation or the equivalent. One semester credit hour may also signify not less than forty-five hours of shop instruction or the equivalent.

Quarter credit hours are based on the quarter calendar which usually extends for about ten weeks. The usual custom is to equate two semester hours with three quarter hours.

Transfer

The term "transfer" as used in this report refers to course and credit exchange policies and procedures. A transfer student is one who is seeking to move educational credits from one postsecondary education institution to another at the postsecondary level.

Articulation

The term "articulation," as used in this report, refers to the equation of courses and curricula offered at different institutions so that students can change their registration from one institution to another with minimum loss of time or credits in the pursuit of a degree or credential. Transfer of credit is accordingly a service that is a component of the larger process of articulation.

Nontraditional Learning

The term "nontraditional learning," as generally used in postsecondary education circles, incorporates credit programs based on new or unconventional forms of education that are free of time, place, and space limitations typical of traditional classroom-based instruction. In specific terms, such programs may be unconventional in any of the following ways:

- The students enrolled may be working adults (e.g., military service personnel), housewives, young or older adults motivated to study independently, or others who cannot easily come to the campus or who cannot or do not wish to devote full time to classroom endeavors.

- The location of the learning experience may be unusual in that it takes place off campus at a military installation, learning center, field work location, an office or factory, or even the worker's home.

- Policies and procedures may provide maximum recognition of prior, college-level learning, regardless of the manner by which such learning was attained.

- The method of instruction may involve media (e.g., computers, satellites, audiographics, video cassettes), programmed learning materials, or other nonclassroom methods that have not been commonly practiced within postsecondary education institutions.

- The content of the program may be the same as conventional campus courses or programs, but it will be a program offered for atypical students or at an unusual location or presented in a novel way.

- The institutional arrangements for student support services such as counseling or for instruction may incorporate contractual relationships with organizations (e.g, military units, business and industry, labor unions, professional associations) or individuals not previously having direct ties to the institutions.

- Other characteristics often found in nontraditional programs include competency-based curricula, reduced or no-residency requirements for earning a degree, and greater participation by students in designing their own learning programs and experiences.

Among the instruments in use to facilitate programs of nontraditional learning are: (1) assessments of experiential learning, (2) external degrees, (3) evaluations of formal training, e.g., The Guide to the Evaluation of Educational Experiences in the Armed Services developed by the American Council on Education, (4) portfolio development, (5) contract learning, (6) competency-based curricula, and (7) correspondence study. Quite obviously, members of the Military Services make use of these resources in disproportionate numbers. To the extent these methods and instruments of nontraditional learning are not understood or accepted by some postsecondary education institutions, military students seeking transfer of credits to such institutions will experience difficulties.

Credit and Nontraditional Programs

These definitions point up the contradictions inherent in using the concept of credit — essentially a measure based on "time served" — to record competent performance that is independent of a time frame. Credit is, however, unlikely to be replaced in the foreseeable future as tradeable academic currency. On that account, recommendations stemming from any study of credit transfer must be adapted to fit the system as it exists — rather than the more outcome-oriented system of measures that may one day evolve.

TRENDS AND CONTEXTUAL FACTORS

The project work group noticed a generally low level of awareness of the needs of Military Service students among persons interviewed or surveyed as part of the project effort. "I don't know" was too often the answer to project-posed questions about policy or practice relating to military personnel. This in itself is an important finding and is reflected in the recommendations designed to heighten institutional awareness of the problems of students who are Military Service members.

Rather than trends, what might be called "contextual factors" are the forces that drive decision making about students who are members of the armed forces. Some of these are quite specific to the Military Services. Others flow in much larger educational or societal currents. A number of such factors have been identified by the project working group as relevant to the task at hand.

Military Service Factors

Specific to the Military Services are these contextual factors:

1. The current climate toward postsecondary education in the Military Services is positive. Whether a Service member aspires to off-duty collegiate or military-sponsored instruction at the postsecondary level, participation is likely to be encouraged and supported.

2. Today's military recruits have more education than their counterparts in the recent past. More of them possess high school credentials, the basic prerequisite for college-entry, than at any time since the mid 1960's and more are scoring above average on the Armed Forces Qualification Test (AFQT). Consequently, the Military now represents a more fertile field for student recruitment than is generally recognized by collegiate administrators.

3. The ambiguous nature of definitions in the realm of credit for nontraditional learning hampers the process of accepting such credits at postsecondary institutions.

4. The absence of a continually updated base of key information relevant to transfer, articulation, and transcripting concerns often makes decisionmaking difficult for both Service members and institutions.

5. The long-established Servicemembers Opportunity Colleges (SOC) program has a surprisingly low profile within the postsecondary education community. The opportunities presented by this well-designed and promising model are unfamiliar to many postsecondary education administrators who should have knowledge of them.

6. The credit-generating potential of the Defense Activity for Non-Traditional Education Support (DANTES) and other credit-by examination programs appears to be insufficiently realized.

7. The Army/ACE Education Registry Transcript System (AARTS) is being received with enthusiasm within the postsecondary education community. This record system has done much to relieve problems relating to the appropriate documentation of learning experiences.

General Factors

Not specific to the Military but affecting the decision making related to Military Service students enrolled, or seeking enrollment in, colleges and universities are these factors:

1. The percentage of adult and part-time students entering postsecondary education institutions is growing rapidly. There is every evidence that this trend toward an older and increasingly part-time postsecondary enrollment will continue and accelerate as more persons in the now middle-aged demographic "bulge" find themselves in need of postsecondary education for career or life-goals advancement. Given this fact, it will be a rare college or university that can afford to ignore the needs of the new clientele of adult and part-time students, many of whom can be expected to present nontraditional records and transcripts similar to those typical of students in the Military Services. Members of the Military Services, as individuals within this group, can expect to reap the benefits of this pronounced trend.

2. Within the postsecondary education community, the long-standing assumption that the typical student is between 18 and 25 years of age, fully or largely dependent upon parents for support, and following a linear course of academic study is dying hard. Consequently, when articulation or transfer policies are written, the concerns of nontraditional (though increasingly mainstream) students tend to be left out. It is rare, actually, for the special needs of military students to appear explicitly in written policies that greatly affect them. This low profile is itself a major source of difficulty.

3. Clearly evident within today's environment is the demand of the public and its elected representatives for quality control in education. The primary current focus for this strong force is on education at the elementary and secondary level, but pressures are being felt at the postsecondary level as well. Unhappily, this pressure is being manifested in at least some states in the form of stiffened resistance to anything perceived as "nontraditional" programs which sometimes have a "diploma mill" image. In the absence of strong counter pressures in the form of real (and recognized) quality control for nontraditional programs, enrollment of military students who present transcripts bearing nontraditional credits may be hindered. Acceptance of credit that is core or key to the major is particularly at issue here.

RECOMMENDATIONS

The trends and contextual factors affecting members of the military services who attend or seek to attend colleges and universities define the environment within which action toward alleviating problems must proceed. Along with other societal structures, postsecondary education institutions tend to adapt to the environment within which they find themselves. It follows that actions in the direction of prevailing environmental pressures will tend to be more successful than actions that contravene strong enviromental elements.

The recommendations herein presented accordingly take into account the realities, as well as the opportunities, inherent in the higher education universe as it functions at the present time. They are drawn from the three succeeding reports, as well as from analysis of the broader concerns addressed as part of the project effort. To facilitate appropriate consideration and action, the recommendations are specifically directed to: (1) postsecondary education institutions, (2) postsecondary education associations, (3) state governments and postsecondary education systems, and (4) the Department of Defense and the Military Services.

Following each recommendation is a reference to the report or source from which the recommendation is derived. The key word "Trends" refers to the report entitle "Introduction, State and Institutional Trends, Recommendations," by David Stewart. "Transfer" refers to "Transferability of Credits" by Meredith Ludwig. "Articulation" refers to "Articulation Between Degree Programs" by James Palmer. "Transcripts" refers to "The Designation of Nontraditional Credit on Academic Transcripts" by Wayne Becraft. "Research" refers to the "Research Summaries" that appear as appendices. It is also noted that some recommendations stem from "Advisory Committee" deliberations.

To Postsecondary Education Institutions:

1. Institutions should join Servicemembers Opportunity Colleges (SOC), especially SOCAD, BDFS, SOCNAV-2, and SOCNAV-4, and adhere to SOC principles to facilitate the enrollment and successful transfer of Military Service members. [Trends,8; Transfer, 10-12, 14; Articulation, 14-17; Transcripts, 8,9,20; Research, B-3]

2. Non-SOC, as well as SOC-member, institutions should follow the SOC guidelines in evaluating and awarding credit for learning acquired through formal training and occupational experiences by military personnel. [Advisory Committee]

3. Institutions should be certain that their academic officials and student advisors, in addition to their registrars, have access to and understand procedures and guidelines used to evaluate nontraditional learning. These officials need to be able to provide prospective military students with realistic information about the evaluation of nontraditional learning. [Transcripts, 21-22]

4. Academic advisors at institutions should explain to students the difference between acceptability and applicability of credit being transferred. A comparable explanation should appear in student recruiting literature. [Transcripts, 19]

5. Institutions should make their personnel aware of the tools to facilitate the transfer or enrollment of Military Service personnel that are provided by such organizations as Servicemembers Opportunity Colleges (SOC), the American Council on Education (ACE), the Council for Adult and Experiential Learning (CAEL), and the Defense Activity for Non-Traditional Education Support (DANTES). [Trends, 8; Articulation, 17; Transcripts, 20; Research, B-4]

To Postsecondary Education Associations:

1. The postsecondary education associations that sponsor the Servicemembers Opportunity Colleges (SOC) program should encourage their members to join SOC (especially SOCAD, BDFS, SOCNAV-2, and SOCNAV-4) and adhere to SOC principles because of its effectiveness in solving transfer of credit and articulation problems. [Trends, 8; Transfer, 10-12, 14; Articulation, 14-17; Transcripts,8-9, 20; Research, B-3]

2. Postsecondary education associations should address the issues of program articulation, transfer of credit, and nontraditional credit on academic transcripts in their annual meetings or other program activities. [Advisory Committee]

3. The Council on Postsecondary Accreditation (COPA) should encourage its members to address the impact of accreditation standards on issues involving transfer of credit and program articulation (e.g., efforts should be made to insure that provisions for access by Military Service members and other nontraditional students are not overlooked in the wake of concern about improved quality). [Transfer, 12-13; Advisory Committee]

4. Standards for transcripting the credit for various types of nontraditional learning (including standardized definitions of terms) should be developed under the leadership of AACRAO, ACE, and other interested organizations. [Trends, 7; Transcripts, 22]

5. AACRAO should consider developing guidelines that encourage institutions to transcript only those credits that will actually be applied to a student's degree program. [Transfer, 11; Transcripts, 22]

6. ACE, AACRAO, AASCU, AACJC, and other interested associations should provide encouragement and should assist institutions in using the Army/ACE Education Registry Transcript System (AARTS) to facilitate transfer of credit for soldiers (and the system should be expanded to include the enlisted personnel of the Navy, Marine Crops, and Coast Guard). [Trends, 8; Transfer, 11; Articulation, 15-17; Transcripts, 19-21; Research, D-5, D-6]

7. ACE, AACRAO, AASCU, AACJC, CAEL and other interested associations should develop new, or expand existing, workshops designed to assist personnel at postsecondary institutions in understanding and using the instruments to facilitate the assessment of nontraditional learning (e.g., The Guide to the Evaluation of Educational Experiences in the Armed Services, experiential learning assessment, credit by examination, etc.). [Trends, 8; Transfer, 10,12; Research, D-6]

8. ACE, AACRAO, AASCU and other associations should encourage four-year institutions to examine their transfer credit policies and consider the circumstances under which they could accept vocational-technical credit, at least on a limited basis. [Transfer, 10-11; Articulation, 8, 11-12, 15; Transcripts, 19,22; Research, B-1]

9. AACRAO should speed up the development and implementation of a system for the electronic transfer of transcripts, an innovation that would simplify and quicken the evaluation of credits of nontraditional and transfer students, especially Military Service students who are likely to acquire transcripts at several different institutions. [Transfer, 14-15; Transcripts, 22]

10. ACE should obtain, and appropriately disseminate, information about credit acceptance and application from AARTS transcripts. [Trends, 8; Transfer, 11; Articulation, 15-17; Transcripts, 20-21; Research, D-5, D-6]

11. ACE, AACRAO, and other interested organizations should develop model program articulation agreements and review and update existing transfer of credit policy statements, looking to the SOC criteria as a model. [Trends, 8; Transfer, 12; Research, A-6]

12. Postsecondary education associations should work with SOC to develop and disseminate a compendium of success stories showing how military personnel have successfully completed degree programs after having credit awarded for nontraditional learning. [Transcripts, 21]

13. ACE, AACRAO, and other associations should continue and expand their efforts to inform the public, and particularly military personnel, about the growing number of legal and illegal diploma mills in the U.S. and other countries. The threat to the integrity and well-being of legitimate nontraditional programs posed by these organizations must not be underestimated. [Trends, 9; Transcripts, 11-12, 20,23]

14. ACE, AACRAO, AASCU, COPA, and other associations should make concerted efforts to encourage colleges and universities to accept academic credit from both regionally and nationally accredited colleges and universities. [Transcripts, 18,22]

To State Governments and Postsecondary Education Systems:

1. Postsecondary education systems should encourage institutions to appoint articulation and/or transfer of credit coordinators who can quickly and efficiently address transfer of credit problems. Such individuals should meet periodically with their counterparts at other institutions. [Transfer, 12-14; Articulation, 12; Research, B-2, D-1]

2. Postsecondary education systems should work with the Military Services and state advisory councils for military affairs to develop strategies for better communication on educational issues and problems, including transfer of credit and degree program articulation (e.g., regular meetings between appropriate representatives of both groups). [Transfer, 10; Advisory Committee]

3. Appropriate state agencies and postsecondary education systems should encourage institutions to join SOC or other inter-institutional networks that facilitate enrollment and transfer of credit by members of the Military Services. [Trends, 8; Transfer, 10-12, 14; Articulation, 14-17; Transcripts, 8-9, 20; Research B-3]

4. In developing program articulation policies, state policy makers should not deny colleges and universities the option of recognizing credit presented by nontraditional students under appropriate procedures to assure good practice. Overly prescriptive policies that allow no option except denial of such credit should be avoided. [Articulation, 6,8, 16-17; Transcripts, 17; Research, B-2, B-3]

5. State postsecondary education systems should encourage member institutions to award credit for college-level learning acquired by nontraditional students, including members of the Military Services, through their formal and informal education and training experiences. Valid and reliable instruments for assessing this learning include standardized examinations such as College Level Examination Program (CLEP) and Defense Subject Standardized Tests (DSSTs) and credit recommendations of The Guide to the Evaluation of Educational Experiences in the Armed Services (ACE). [Trends, 8; Transcripts, 17-18; Research, D-1, D-4, D-5]

6. Postsecondary education systems should encourage the use of new technologies to deliver high-quality courses to nontraditional students, including Military Service members. As they become well known, credits awarded for such courses will be easier to transfer. [Advisory Committee]

7. In states that have advisory councils for military affairs, members of the State Higher Education Executive Officers (SHEEO) should cooperate with them on planning for meeting the educational needs of active-duty Service members, Reservists, National Guard personnel, and veterans. In those states that do not have advisory councils, the SHEEO's should play an active role in establishing them. (One benefit could be an increase in the rate of participation in postsecondary education by persons in the National Guard and Reserve units.) [Advisory Committee]

To the Department of Defense and the Military Services:

1. Army education service officers (ESOs) and counselors should be fully informed as to the effectiveness of Army/ACE Registry Transcript System (AARTS) when used by soldiers in seeking entry to postsecondary education institutions and educational credit for their learning acquired in the military. Information about AARTS should be provided and adequately explained to Service members, ESOs, counselors, and recruiters. [Trends, 8; Transfer, 11; Articulation, 16; Transcripts, 15, 20-21; Research, D-5, D-6]

2. The Navy, Marine Corps, and Coast Guard should be encouraged to work with The American Council on Education (ACE) in adapting AARTS to meet their needs and making it available to their members. All Services should work to assure that AARTS (or a counterpart) is used in Servicemembers Opportunity Colleges (SOC) programs. [Trends, 8; Transfer, 11; Articulation, 16; Transcripts, 15, 20-21; Research, D-5, D-6]

3. DoD and the Services should provide guidance and incentives to ESOs to encourage soldiers and sailors to take advantage of SOC institutions and SOC degree programs. [Advisory Committee]

4. ESOs and counselors should inform students that acceptance of credit is basically the prerogative of the receiving institution. [Transcripts, 19; Research, D-6]

5. Existing Military Service policies and procedures used to inform ESOs and counselors with respect to transfer of nontraditional learning into traditional programs should be reviewed to determine whether they are accurate, realistic, and appropriate. [Transfer, 11; Research, D-6]

6. ESOs and counselors as they assist students in developing educational plans should inform them that transfer of credit is sometimes problematic. Assurance that credit will transfer cannot always be given. [Transfer, 11, Research, D-6]

7. ESOs and counselors should encourage their students to request the opportunity to secure credit by examination upon making application for admission to an institution of postsecondary education. [Transcripts, 14; Advisory Committee]

8. The Military Services should give ESOs some incentives to increase the use of credit by examination and other alternative methods of earning credit by their clients. [Transcripts, 20; Advisory Committee]

9. DoD and the Military Services should actively seek opportunities to make colleges and universities more aware of the problems in postsecondary education being experienced by military personnel and of the possible solutions to those problems. Among these opportunities are the annual or regional meetings of postsecondary education associations. [Advisory Committee]

10. DoD should inform members of the Military Services of the activities of legal and illegal diploma mills whose credits will not be accepted by appropriately accredited institutions of postsecondary education. [Trends, 9; Transcripts, 11-12, 20,23]

11. DoD with the associations that sponsor SOC and other appropriate policy making organizations, should convene an annual conference at which matters of concern to the Military and postsecondary education institutions would be discussed. [Advisory Committee]

RESEARCH AGENDA

As it conducted and reviewed its studies, the project work group took note of further research that it believes would be helpful in identifying and alleviating problems experienced by Military Service members who seek postsecondary education opportunities. Accordingly, the following continuing research agenda is suggested.

1. Data concerning the patterns of transfers or attempted transfers by military (and other) students is currently lacking and should be collected and used in policy making by institutions and postsecondary education systems.

2. A survey of chief executive officers of postsecondary education institutions not belonging to Servicemembers Opportunity Colleges (SOC) should be conducted. Survey questions would focus on these questions: (1) Which of the existing policies of SOC could your institution embrace? (2) Which of the existing policies of SOC could your institution not embrace and why? SOC policies and practices should then be reviewed in light of the survey findings.

3. AACRAO, ACE, and AASCU should conduct, or encourage development of, studies that address institutional fears that acceptance of military and other forms of nontraditional credit may (1) diminish the quality of degrees and (2) result in loss of income to the institution.

With their many facets, problems associated with degree program articulation and transfer of credit are complex. Progress toward solutions requires continuous monitoring and persistent efforts in directions where success is most likely to be achieved.

REFERENCES

Anderson, Clinton L. "Degrees by Alternative Delivery for U.S. Soldiers and Sailors," in *Proceedings*, 8th National External Degree Conference, Washington, D.C., October 12-14, 1988.

Beck, Dee. "Tips on Finishing College Education," Education Supplement to *Army Times*, *Navy Times*, *Air Force Times*, 21 November 1988: 64.

Beck, Dee. "Transferring: What You Don't Know Can Hurt You," Education Supplement to *Army Times*, *Navy Times*, *Air Force Times*, 21 November 1988: 1, 65.

Boesel, David, and Kyle Johnson. " The DoD Tuition Assistance Program: Participation and Outcomes," Defense Manpower Data Center, 27 May 1988.

Breckon, Donald J. "Occasional Papers on Non-Traditional Adult Education." Parkville, Mo.: Park College [eight articles] undated.

Cangialosi, Judith. "Credit-Granting Practices for Extrainstitutional Learning in Postsecondary Institutions," Unpublished Master's Degree thesis; Department of Administration, Supervisiion, and Curriculum; University of Maryland, College Park, 1980.

Cobb, Barry. "An Examination of the Utility of the *Guide to the Evaluation of Educational Experiences in the Armed Services*, The Defense Activity for Non-Traditional Education Support, December 1978.

"College Transfer," Working Papers and Recommendations from the Arlie House Conference, 2-4 December 1973. Issued by the Association Transfer Group and other conference sponsors, 30 April 1974.

"Community College-Senior College Articulation in Illinois," A Report and Recommendations by the Illinois Community College-Senior College Articulation Task Force, August 1978.

"DANTES Mission and Activities," DANTES, Pensacola, Florida [undated].

"Data and Definitions, A.A.C.R.A.O. Handbook 1980," American Association of Collegiate Registrars and Admissions Officers, 1980.

"Directory of Colleges and Universities with Non-Traditional Programs/Systems/Practices," American Association of Collegiate Registrars and Admissions Officers, May 1987.

"Directory of Transfer of Credit Practices in North Carolina," Association of Independent Colleges and Schools [undated].

Donovan, Richard A., Barbara Schaier-Peley, and Bruce Forer. "Transfer: Making It Work: A Community College Handbook," American Association of Community and Junior Colleges, 1987.

"Education Programs in the Department of Defense," Office of the Assistant Secretary of Defense for Force Management and Personnel, November 1987.

The Guide to the Evaluation of Educational Experiences in the Armed Services. New York: American Council on Education/Macmillan (published every two years).

"Guidelines for Improving Articulation Between Community/Junior and Senior Colleges," Joint Task Force on Postsecondary Articulation (AACRAO, AACJC, ACE, AICS, COPA, NACHC), December 1980.

"Guidelines for Transfer: Recommendations of the Joint Committee on College Transfer Students." Special Report, The University of North Carolina General Administration, May 1987.

Hagen, Donald. "Transferability: The Rhetoric and the Reality," Wisconsin Vocational Educator, Winter 1987-88: 9, 20.

Hexter, Holly, and Charles J. Andersen. "Admission and Credit Policies for Adult Learners," Higher Education Panel Report No. 72, American Council on Education, December 1986.

Hexter, Holly, and Elaine El-Khawas. "Joining Forces: The Military's Impact on College Enrollments," American Council on Education, October 1988.

"Joint Statement on Transfer and Award of Academic Credit," Self-Regulation Initiatives, No. 4, American Council on Education, January 1980 [Joint statement by ACE, COPA, AACRAO].

Kintzer, Frederick C. "Articulation and Transfer: A Review of Current Literature on Statewide and Interinstitutional Program Models and Trends." Prepared for the State of New Jersey Department of Higher Education, March 1989.

Kintzer, Frederick C. Emerging Patterns of Statewide Articulation Transfer Agreements. Santa Monica, Calif.: Pine Publicatons, 1976.

Kintzer, Frederick C. (ed.). Improving Articulation and Transfer Relationships. New Directions for Community Colleges, San Francisco, Jossey-Bass, Inc. Publishers, September 1982.

Kintzer, Frederick C., and James L. Wattenbarger. "The Articulation/Transfer Phenomenon: Patterns and Directions," American Association of Community and Junior Colleges, Council of Universities and Colleges, ERIC Clearinghouse for Junior Colleges, May 1985.

Knapp, Joan. "Do Graduate Schools Discount Experiential Learning Credits?" New Directions for Experiential Learning 4: 1979, 17-22.

Lerner, Max S. "Articulation Manual: A Guide for Transfer of Credit Between Educational Institutions," National Association of Trade and Technical Schools, 1987.

Martorana, S.U., and Eileen Kuhns (eds.). Transferring Experiential Credit. San Francisco: Jossey-Bass Publishers, 1979.

McKeefery, William J. "Cooperative Arrangements Between Private and Public Colleges." A Report on Current Practice and Recommendations for Policy, American Association of State Colleges and Universities in cooperation with the Council for the Advancement of Small Colleges, 1978.

"Minutes," Joint Committee on College Transfer Students, The University of North Carolina General Administration, Chapel Hill, North Carolina, 11 April 1989.

"Model Policy on Awarding Credit for Extrainstitutional Learning." American Council on Education, The Center for Adult Learning and Educational Credentials, June 1987.

"Policies of Senior Colleges and Universities Concerning Transfer Students from Two-Year Colleges in North Carolina." Special Report, 1986-1987, The University of North Carolina General Administration, December 1986.

"Principles for Developing Credit-Based Instructional Programs with a Business, Industry, or Other Non-Collegiate Organization." American Council on Education, Self-Regulation Initiatives, No. 1, December 1984.

"Recommendations on Credentialing Educational Accomplishment." Task Force on Educational Credit and Credentials, American Council on Education, 1978.

"Results of an Attitudinal Survey Concerning Selected Statewide Programs." Junior-Senior College Relations Committee, American Association of Collegiate Registrars and Admissions Officers, 1977-78.

Sosdian, Carol P., and Laure M. Sharp. "The External Degree as a Credential: Graduates' Experiences in Employment and Further Study." Bureau of Social Science Research, Inc.; U.S. Department of Health, Education, and Welfare; National Institute of Education, April 1978.

"State-Wide Articulation Agreements," A Survey Project of the Junior-Senior College Relations Committee of the American Association of Collegiate Registrars and Admissions Officers, 1976-77.

Stewart, David W., and Henry A. Spille. Diploma Mills: Degrees of Fraud. New York: American Council on Education/Macmillan Publishing Company, 1988.

"Strengthening Transfer and Articulation Policies and Practices in California Colleges and Universities," California Postsecondary Education Commission, Adopted 2 November 1987.

Sullivan, Eugene (ed.). Guide To External Degree Programs in the United States. Second Edition. New York: American Council on Education/ Macmillan Publishing Co., 1983.

"Transfer, Articulation, and Collaboration Twenty-Five Years Later," The report of a research project funded by the Ford Foundation, California Postsecondary Education Commission, 27 April 1987 [Draft].

"Transfer Credit Practices of Designated Educational Institutions: An Information Exchange, 1988-1990," American Association of Collegiate Registrars and Admissions Officers, 1986 [Also, 1986-1988 edition].

U.S. Government, Department of Defense, Directive No. 1322.8, "Voluntary Education Programs for Military Personnel," 23 July 1987.

Warren, William. "Final Report to the Arthur Vining Davis Foundations on the Institutional Self-Assessment Project," American Council on Education, Commission on Higher Education and the Adult Learner in collaboration with the National University Continuing Education Association, February 1987.

TRANSFERABILITY OF CREDITS

Meredith Jane Ludwig
Director of Association Research

American Association of State Colleges and Universities

Prepared under Department of Defense (DoD) Contract No. MDA 903-88-C-0227 awarded to the American Council on Eucation (ACE) in consort with the American Association of State Colleges and Universities (AASCU), the American Association of Community and Junior Colleges (AACJC), and the American Association of Collegiate Registrars and Admissions Officers (AACRAO).

November 15, 1989

TRANSFERABILITY OF CREDITS

Meredith Ludwig

Background

The powerful themes of quality and access come together in the discussion of many issues in postsecondary education. The issue of transferability of credits is no exception. It is perhaps one of the best examples of conflicts between consumer and service as the diversity of clients confronts the highly structured world of postsecondary education.

The process of transfer typically involves a formula/agreement for awarding credits toward general education, elective, and/or major requirements for a bachelor's degree. The term is generally applied when describing the conditions of applicability of collegiate courses for credit between institutional types (2-year to 4-year) and sometimes to the applicability of noncollegiate or extra-institutional learning. Agreements that address this applicability and correspondence of credit tend to be framed as articulation agreements and may be operating voluntarily between institutions and within whole systems of higher education, or be state-mandated. The focus of such agreements tends to be on either completion of a general education core and/or an associate degree package as conditions for the transfer and awarding of credit.

However, the diversity of opportunity (delivery options) in the United States to earn educational credits complicates the transfer discussion and equation. Postsecondary education cannot ignore those individuals involved in continuing education, business-sponsored education, and military-sponsored education. Also, student issues in the transfer discussion continue to be on national and state policy agendas: student aid for part-time and adult students, measuring the progress and attainment of college participation, underrepresentation of minorities in higher education, and accountability.

This report focuses on the problems of military servicemembers moving within the postsecondary education system. Although little specific data have been collected by states and institutions about these problems, it is clear from other studies of more traditional transfer students, that the problems of this client group require considerable attention. The report will first review the statistics that set a context for transfer issues: demographics of participants in higher education, demographics of military participants in higher education, curricular and assessment pressures. Then, current research and analyses of the effect of transfer on the student are summarized. Finally, institutional practice and state policy affecting transferability of credits are reviewed, to examine the barriers as well as the improvements to the process and services that have been made.

Demographic and Curricular Forces Affecting Transferability of Credit

Demographic and curricular forces affect institutional practice and state policy concerning the clients and the process of transfer. At least four that are important to this discussion are:

- Growing adult population in higher education and the pressures to improve the assessment and reporting of their credentials
- Impacted and extremely popular programs in particular disciplines, requiring additional admissions and graduation requirements

- The assessment movement, as it brings changing curricular requirements at the lower division level and pressures for tracking students and measuring the outcomes of their participation

- Growing participation of military service members in voluntary education and the growing educational qualifications and aspirations of current military recruits and reservists.

Demographic Trends

Forty percent of all undergraduate students in the fall of 1986 were age 24 or older. Twenty-three percent of this older age group were 30 or older. (1)

The aging of the student population has been occurring throughout the past decade. The ten-year period of 1977-78 through 1987-88 is noted for a 37 percent increase in the number of students in postsecondary education over age 30. (2)

The U.S. Department of Education projects that in the next ten years (1987-88 through 1997-98) an 8 percent drop in the number of college students in the 18-24 year old range will be balanced by a 15 percent increase in the number of students over age 30.

The increase is expected to be felt primarily at the undergraduate level. Consistent with these projections is the forecast that full-time attendance in higher education is expected to drop by 14 percent between 1985-86 and 1995-96 while part-time attendance increases by 4 percent. (3)

As each new report from the Department of Education and other educational organizations is released, the evidence grows that national policy discussions about higher education cannot afford to omit the older student.

Participation of Military Servicemembers in Postsecondary Education

There are 12.2 million students in higher education earning credit, and 2.16 million on active duty in the various armed services. (4) About 3 percent of all higher education enrollments could be accounted for by active duty personnel, who in 1987 reported participating in 778,000 college-level courses. (5) About 30 percent of current service members have pursued voluntary education of some kind while in the military and about half of these have used the tuition assistance program to support their studies. (6)

Current servicemembers participating in postsecondary education constitute one group that overlaps the age ranges of students participating in for-credit postsecondary education. This varied group of clients poses significant problems for measurement, because they earn credits in a number of ways. (7)

1. All current members earn credit for learning acquired through military experiences and military-sponsored education. A recent estimate is that 400,000 semester hours per year for military learning are earned by military personnel, and evaluated with the Guide to the Evaluation of Educational Experiences in the Armed Services (American Council on Education).

2. About 90 percent of new recruits in the services are participating in the Montgomery GI Bill and are thus planning to use their benefits in institutions of higher education. In 1993, an estimated 404,000 veterans and reservists are likely to be enrolled in college-level study.

3. Current members earn credit through their participation in off-duty education and external degree programs. About 200,000 participants in off-duty voluntary education are affected by agreements among institutions that guarantee credit transferability. Seventy thousand of these are participating in SOC Networks, which are established around curriculum/degree goals.

   In 1987, 2,417 enrollments in independent study were reported by the services and 100,000 credit exams administered. (8) (9)

Even without this evidence of participation, the profile of today's recruits indicate high interest and aspirations regarding postsecondary education. Education credentials are greater among recruits, with more having high school credentials "than at any time since the mid-1960s," and more scoring above average on the Armed Forces Qualification Test (AFQT). (10) Among new recruits, for example, women have the highest diploma rate-99 percent--which raises the rate for all recruits. (Women have become a major force in higher education enrollments, comprising about 53 percent of all enrollments.) (11)

The recent study of participation in the tuition assistance program provides some insights as to the aspirations of enlisted personnel for higher education participation during their service. (13) Rates of participation in the tuition assistance program increase with the individual's level of education--up until the college graduate level--and increase consistently with AFQT scores. Women participate more than men and blacks more than whites. Tuition assistance is positively correlated with professional development (as measured by promotion) and retention (reenlistment). (14)

Hexter and El-Khawas anticipate 90 percent of active-duty veterans and 100 percent of reservists will be using military benefits in 2- and 4-year institutions. (15) The diversity of their educational experiences, as the data presented show, will present a major challenge to higher education institutions in terms of transfer of credits.

An earlier study of veterans' educational participation supports a little lower estimate, perhaps. Kolstad related individuals in the National Longitudinal Study (1972) sample to the Defense Manpower Data Center (DMDC) accession and loss records of service members over the period of 1972-1979. School enrollments that occurred during the interval between leaving the military and the last NLS-72 survey were observed. Kolstad found more than 50 percent of veterans eligible for GI bill benefits enrolled in a postsecondary educational program within one year after leaving the military. The percentage who had ever attended school rose to nearly 75 percent after five years. (16) (17)

While the Hexter and El-Khawas and Boesel and Johnson studies indicate military personnel are willing to stay, gain education, promotion, and see the service as a means of social and economic mobility, other data collected on military separatees presents a different perspective on these opportunities for some servicemembers.

The 1985 Army Experience Survey of recently separated soldiers finds that many leave the service because of a perceived inability to receive desired education and/or skills training. "Learning job skills" was a reason given by only 15% of those saying their Army experience was valuable. Sixty percent of those who rated the Army as not valuable listed their inability to get job fulfillment, training and/or the education they wanted as reasons for not being content with Army service. (18)

Curricular Change and Assessment

Eighty-one percent of American colleges and universities expect all students to complete a core amount of course work in general education. In addition, general education requirements are now in place at the upper-division level in about 4 in 10 baccalaureate and comprehensive institutions. (19)

In states where policies endorse the transferability of the 2-year associate of arts and science degrees to the 4-year institution, these changes in general education requirements—both distribution and core—will be taken into account. However, the impact of curricular change could be most significant for students who wish to transfer from a program of studies that has been largely career oriented. In some states, these programs are not viewed as transfer programs because of a lack of general education credits earned. For students enrolled in vocational and technical degree programs and planning to transfer to 4-year institutions, integration of general education into the curriculum would be beneficial.

While work has been proceeding in 4-year institutions on tightening the general education requirements, the academic community has also been involved in adding or changing requirements to popular or impacted specialized programs. Without comprehensive resources and guides to these curricular changes, transfer students are likely to lose time and credits as they try to enter these disciplines at 4-year institutions. Two-year institutions are also involved in this trend. Knoell points out that 78 percent of 2-year institutions have one or more programs with admission requirements that differ in selectivity from those for the institution generally. (20)

In the past five years, assessment has been the predominant framework used for discussing student participation, higher education effectiveness and quality. A continuous process of measuring how well an institution's goals are being met, the assessment activity has always been part of the higher education enterprise. However, the focus has shifted over the past twenty years from measuring competency-based learning of the individual student to the development of measures of assessing traditional and nontraditional learning.

Currently, all sectors of postsecondary education are investigating the mechanics of assessment, the assessment of programs and the uses of assessment data. While some estimates have pinpointed 30-40 states active in the development, support, or mandate of assessment strategies, only about 15 are really involved in policy formulation. (21)

Assessment efforts at higher education institutions have primarily been focused on the traditional student. New general education requirements, new graduation requirements, student testing in the major and advisement strategies have all been results of the movement. These changes pose problems for transfers, for example, in making up foreign language requirements and meeting general education requirements that are institution-specific. In addition, a great deal of resources are being devoted to the freshman experience, to recruiting, and to improving retention. Transfer students have—for the most part—been left out of the institution's look at its effectiveness.

However, there is new interest in assessing the transfer student and in developing ways to communicate that assessment to ultimately improve the transfer process. Some methods of assessment are criterion referenced tests (American College Testing program), tracking grades, credit earned, and credit retention (New Jersey assessment program), and portfolio assessment using instruments and guides developed by the Council for Adult and Experiential

Learning (CAEL) and the American Council on Education (ACE), for example at Rhode Island College, University of Maryland, University College, Thomas Edison State College and Northeast Missouri State University. A group of academic advisors knowledgeable about awarding credit for adult education have established the Experiential Learning Assessment Network (ELAN) to share information about portfolio assessment.

The Transfer Phenomenon

An Introduction to the Players

Over the past twenty years, researchers have tried to count, follow, and characterize the "transfer." The transfer student is typically defined as one who has moved or is trying to move educational credits from one postsecondary education institution to another. However, in the scope of this report, the transfer student is one who has compiled a record of educational experiences from a number of educational settings, mixing military-sponsored education with collegiate education.

The transfer can be a persister or not; that is, the rate at which the transfer progresses through the educational system to a degree or credential or to simply earn credits does not change the fact that he or she is trying to take an educational experience that has been awarded credit and move it as is to another institution.

The results of numerous studies indicate that the background characteristics of the transfer student and the direction of the transfer are important factors in understanding the effect of transfer. One of the best sources of data for national trends is the body of national longitudinal studies sponsored by the National Center for Education Statistics (National Longitudinal Study of 1972 and High School and Beyond). However, from the work of NCES contractors and independent researchers, we know about the transfer patterns of high school graduates participating in higher education only. Nearly a blank page exists for the student who does not follow a typical pattern of enrollment, for example, the military servicemember.

There are other players in the transfer process: the native student, the sending and receiving institution or educational organization, and the state authority.

The native student is the student who starts in the receiving institution and remains there. The native student is an important player, because standards for assigning course credit, validation of learning, and expectations of achievement are frequently referenced to the native student's experience. In studies of persistence, attainment and academic success of transfer students, for example, the native student group is used as a comparison group.

Two other players are equally important: the sending institution and the receiving institution. In this cooperative study, we are examining the receiving institution and the institutional practices it has adopted that regulate the assignment of credit. Others (Kintzer, Richardson and Bender) have studied both. The most noted experiments in improving articulation and transfer sponsored by the Ford Foundation and others involve both sending and receiving institutions to address institutional practices in assigning credit, involving faculty, providing student information, and tracking transfers to provide information to all partners in the process.

Finally, the state authority for higher education is also a player. State higher education offices and postsecondary education authorities provide legislators with data regarding student aid, enrollments, funding, and institutions with guidance on good practice. These agencies should be concerned with the transfer activity in their state and the effect of transfer practice on native students, faculty, and other educational institutions.

Research on Persistence, Attainment, and Academic Achievement of Transfers

The emphasis in policy research on transfer varies as the issues in postsecondary education vary. Transfer has been the focus of research when a major concern was the function of community colleges and the relationship between 2- and 4-year institutions. Transfer has recently been related to policy concerns of student progress and attainment.

At the moment, persistence (continuous attendance for the majority of an academic year) and attainment are central to policy discussions of the outcomes of postsecondary education, the productivity of educational institutions and the education of the workforce. The data from recent NCES analyses of longitudinal studies indicate clearly that the way students start and continue to participate in higher education has a different quality in the 1980s than in the 1970s. According to Knepper, the typical student takes longer than 4 years to complete a bachelor's degree. Transferring will add an additional 8 months to the time. (22) There is more evidence of delayed entry. The data assure us of what we know: transfers and various subgroups of students have very different styles of participation.

In 1972, 1 out of every 10 students moved during the first year of college. (23) This was one of the findings of the National Longitudinal Study of high school seniors of 1972 who enrolled in colleges by October 1972 and transferred by October 1973. The first year transfers tended to move from 4-year institution to 4-year institution. However, overall, students moving from 2-year to 4-year institutions comprised the largest transfer group. (24) About one-quarter of the 2-year college students had transferred to the 4-year institutions by the end of the second year after initial matriculation. (25)

The reasons for transfer varied with the type of transfer. The 4-year to 4-year transfer tended to be based on high aspiration while the 4-year to 2-year transfer seemed related to academic or financial difficulty in the 4-year institution. (26)

Another interesting finding of the Peng analysis was: "The number of 4-year to 2-year transfer students was about the same as the number of 2-year to 4-year transfer students." For those transferring from 2-to 4-year institutions, some critical variables were operating: white students were more likely to transfer than blacks, high socioeconomic status (SES) more than low socioeconomic status, students in academic fields, and students of high aspiration and grade point average more than students with lower aspirations and lower grade point averages. (27)

Students with the lowest grade point averages were more likely to transfer from 4-year to 2-year institutions. Hispanics had the lowest rate of transfer from 2 to 4-year institutions and the highest rate of reverse transfer, from 4-year to 2-year. (28)

The NLS study by Peng also compared the achievement, academic preparation, and socioeconomic characteristics of transfer and native students. There were significant differences found, such that native students had higher SES rankings, high school grades, scores on aptitude tests, and higher educational aspirations than did transfer students.

Two-year to 4-year transfer students were less likely to receive scholarships, fellowships or grants. Many of the financial aid programs at the time were based on academic performance. (29)

Eva Eagle reviewed persistence behavior of 1972, 1980, and 1982 high school graduates. (30) She found persistence declined between 1972 and 1980 cohorts and that the proportion persisting through four years from 1982 cohort was significantly lower than the proportion from the 1972 cohort." Forty-seven percent of the 1972 graduates attended four years continuously, compared to 29 percent of the 1980 graduates and 27 percent of the 1982 graduates." (31)

Eagle looks at the relationship between enrollments and persistence rates for clues. Enrollment was highest in the 1980 cohort of high school graduates for all groups, regardless of race/ethnicity, sex, or socioeconomic status. An important factor in this increase is delayed entry into postsecondary education. Delayed entry participants were found to have lower persistence rates.

Persistence through two years and four years of higher education declined with each successive cohort (1) through two years for most students and (2) through four years for blacks and low SES students. (32)

Eagle's study considers that the increased enrollments in higher education included many students who did not have the academic preparation or the financial support to stay in school. She questions whether this characteristic may have been responsible for the drop off in persistence rates. However, when she found that persistence rates fell even for groups which had not experienced much of an enrollment increase (for example, males and high SES) and also fell between 1980 and 1982 for black and low SES students whose enrollment rates had declined, she concluded that there were real declines in persistence not attributable to changes in the enrollment population. (33)

Dennis Carroll followed 1000 high school graduates from the 1980 high school senior cohort who started on track (full-time attendance at a four-year institution) to determine their patterns of participation. Less than one-third of the 1980 high school graduates began on track. Three-quarters of the high school graduates who persisted full-time for four years earned a bachelors degree. When students left this track, their chances dropped to one-third. Carroll found a 9-percent rate of degree attainment for the 1980 graduates who started off track.

For every 1000 high school graduates in 1980, Carroll found only 157 who persisted toward a bachelor's degree on track for four years. "Sixteen percent of the total number of 1980 high school graduates started on track and persisted through the academic year of 1983-84." (34) Carroll's work supports Eagle's finding that delayed entry and off track entry plays a significant role in attainment.

Carroll found that transfer was a positive action for a student to take. Instead of stopping out, which in the long term decreases a student's chance to complete a degree, the student who transfers is apparently making a choice in favor of persistence. Therefore, a phenomemon transparent to many higher education administrators and researchers was documented as well by Carroll's findings: transferring into 4-year institutions from less than 4-year institutions (where they were attending full-time), students completed their bachelor's degrees at a higher rate--29 percent--than students who began their studies at 2-year or less than 2-year institutions and never transferred to 4-year institutions. (35) "Only 26 percent of transferring students left the persistence track while 44 percent of students who never transferred left." (36)

Knepper, continuing the pursuit of data on the effect of persistence and progress on attainment, studied the transcripts of students in the NLS-72 study 12 years after high school graduation. This long view allowed consideration of the typical time it took for students to achieve a bachelor's degree. (37)

Forty-seven percent of the BA degrees earned were completed in the time expected--within 4 years after high school. The average time to complete a BA was 54 months, almost a full academic year more than considered normal. (38)

Students who transferred were not inhibited from completing their degrees. Transferring from one college to another added 8 months or longer to BA completion time, depending on type of transfer. About 7.2 percent of student transfers were from public 2-year to public 4-year institutions. (39)

Although Carroll pinpointed big drop offs at the two and four-year levels of undergraduate education, Knepper found the biggest stumbling block to progress was completing the freshman year on time. Lack of full-time attendance and failure to keep up academically accounted for delays at lower levels. At the senior level, delays in progress may be related to additional credit requirements.

The success of the transfer student in the receiving institution and the factors responsible for this success or lack of it have been the topic of a number of studies. Richardson and Bender have examined the issues for minority students who transfer in urban settings; Knoell has looked twice at the way states keep track of transfer achievement; some states have surveyed former transfer students who complete their bachelor's degrees; and Kintzer presents several authors reviewing data on achievement, including Palmer who noted a number of studies at 4-year institutions assessing the performance of community college transfer students with varying results. (40)

Results of studies on the achievement of transfer students will be different depending on the measurement used and the beginning and end points of the measurement period. Two studies in the states of California and Washington report different trends. In Washington, the results indicate that while transfer students come from different socioeconomic backgrounds and may have had lower aspirations and lower high school grades, when compared with four-year natives the grades, majors and goals were similar upon degree completion. (41) However, Kissler's comparisons of the academic performance of native students and transfer students led him to the finding of a decline in the academic performance of community college transfers as well as a performance below that of juniors who are native students in baccalaureate institutions. (42)

The lack of systematic and comparable data on academic performance hampers any definitive analysis or response to the question of differential achievement. In the past year, Dorothy Knoell surveyed 11 states to compare transfer and articulation policies and practices over 25 years. She reported a lack of data in this area which was surprising, considering the technological advances and the increased pressure for data on student outcomes. (43)

The fact is, many institutions do not track back the progress of their transfers and do not report information to the sending institutions. Neither do they focus on this group when conducting surveys of their graduates. One common characteristic of model institutional articulation efforts (The Urban Community College Transfer Opportunity Program UCCTOP) and the AACJC FIPSE-funded effort this year is the emphasis on the tracking of students, including transfers, to provide for feedback to students and institutions.

Institutional Practices and State Policies Affecting the Transfer Student and the Transferability of Credits

Resources on Institutional Practices and State Policies

This cooperative study of transfer and articulation took as its jumping off point current research and literature on state trends and institutional policies affecting articulation services and transfer policies. The resources located in the ERIC Clearinghouse on Higher Education are most valuable to such an undertaking because they include many institutional and state reports on articulation. Among the three reports for this contract and the introductory report, the reader will find most of these resources noted.

In addition, three publications and papers developed in the past two years offer some of the most comprehensive resources to the practitioner and to the researcher venturing into this area of research and policy analysis.

- Frederick Kintzer, Professor Emeritus, UCLA, has completed a bibliography on articulation and transfer for policymakers at the state level. This was commissioned by the New Jersey State Department of Higher Education and is available through Dr. Kintzer.
- Dorothy Knoell, California Postsecondary Education Commission, is working with the AACJC to publish a look back at 25 years of history of articulation and transfer.
- Richard Richardson and Louis Bender are the authors of a recent book describing the institutional factors related to the academic achievement of transfer, particularly minority students in urban institutions.

Institutional Practices

Throughout the literature on transfer and articulation, the point is made that the action at the institutional level is what counts. Kissler, Knoell, Richardson and Bender describe the procedures and practices affecting decisions about acceptance and application of transfer credits. These practices and operating regularities are of concern to all transfer students, regardless of where their credited learning is acquired.

The research undertaken for this project supports the importance of understanding institutional practice, especially if the goal is to improve the effectiveness of transfer for military service members. Interviews with the participants in our transcript evaluation task brought forth a clear message. There is little room for maneuvering on the award and application of credit. Guidelines for institutional practice are developed within the college or university councils that set curriculum. It then becomes the responsibility of the registrar, the admissions officer, the academic advisor, or student personnel officer to implement the policy.

Frequently the person responsible for the evaluation is also designated as the transfer coordinator. This individual is well-versed in the resources needed to make decisions, and knowledgeable about system or inter-institutional agreements affecting the acceptance and award of credit. The coordinator serves as a facilitator when appeals are made.

Specific policies addressing the amount of transferable credit from military-sponsored education and training do exist at many higher education institutions. In most cases, only certain credits are transferable. These tend to be credits with equivalences in the liberal arts and some physical education credit from the basic military training required of all military personnel.

Many institutions regard learning acquired through military education and training in a similar way as they regard nontraditional credentials. In fact, at a few institutions, the credentials earned through the military are sent to other offices to be evaluated. There are no indications as to how that process might be different or the same as the one documented in this transcript evaluation study.

The guides developed by the American Council on Education which relate military-sponsored education and training to collegiate courses are a great help and are well-used by evaluators.

Institutions that have continuing relationships with neighboring military bases consult their counterparts when trying to identify the course content and learning outcomes that are equivalent to the institution's course content. In the interviews with campus contacts, thirteen institutions reported that a relationship with nearby military bases aided their process of decisionmaking.

Articulation agreements are common among postsecondary education institutions and clearly guide transfer decisions where they exist. Unfortunately, learning acquired through the military is generally not covered by such agreements.

The Servicemembers Opportunity Colleges (SOC) guidelines, when adhered to, provide the extra layer of protection for the servicemember that an articulation agreement might provide for a transfer student from a community or technical college. As described in the report on The Designation of Nontraditional Learning on Academic Transcripts, SOC promotes a standardization of institutional policies and practices that seek to improve the transfer process. SOC achieves this by setting principles of credit acceptance and course equivalence within the perspective of a traditional degree plan. Institutions agree to accept equivalent credit from military-sponsored education and training within these guidelines and students are informed about the likelihood of acceptance and applicability.

When a course does not fit neatly into the institution's guidelines or when a request is made to apply credit to the major, however, evaluators typically refer the decisions to faculty or department heads of that program or discipline. This is where documentation of learning is also critical, because faculty are examining the equivalence of the course to upper division courses.

It is important to emphasize that evaluators feel comfortable with their institutional policies and believe they operate well within these guidelines. If they had one common complaint about their jobs, it was that the documentation of the course and learning outcomes presented with transcripts is consistently inadequate, especially in the case of military personnel.

Nearly all institutions participating in the transcript evaluation study and interviews reported that no exceptions were made for extenuating circumstances or student characteristics in the transfer process. However, a small number (six) responded that their residency requirements were based on SOC principles and this eliminated one barrier for military personnel. One institution cited a unique program for students who attended the institution at one time, compiled a poor academic record, and wishing to reenter the institution for a degree, are permitted to start over without a grade point average.

The current literature concerning the institutional factors that operate as barriers for successful transfer does not offer a convenient consensus. Also, there is a big gap in the literature concerning the study of barriers for military personnel, reflecting the lack of study and data for these transfer students in general. As a result of interviews and surveys with state policymakers and institutional representatives, some very specific barriers were identified:

- Inadequate documentation of military learning provided for personnel and submitted to the institution
- Mismatched expectations of military and higher education personnel concerning what is transferable
- Insufficiency of articulation guidelines regarding nontraditional or military-sponsored learning
- Institutional expectations of course goals, particularly in vocational areas or in impacted programs.

For traditional students who transfer, Kissler focuses on the following environmental features of the institution: the calendar system, the size of the institution, the grading policies, and the social climate and support services for transfer students. (44)

Knoell concentrates on curriculum trends and related policies of entry, assessment and progress as key to understanding transfer problems and improvements: (1) the locus of responsibility at institutions has increasingly settled on individual faculty or committees, rather than records personnel; (2) admissions policies vary widely, including testing for deficiencies in high school or general education, maintaining a certain grade point average, validating learning in upper level courses; (3) there is limited access to some popular or impacted programs; (4) enrollment planning may not take into account transfers; (5) exceptions for admissions are still part of the process; (6) changing curriculum requirements for general education can close out transfers; (7) changing nature of the transfer degree raises the question of what is acceptable. (45)

Richardson and Bender combined the results of three studies to examine the underrepresentation of minority students in higher education. Included in the resulting analysis is an extensive discussion of the role of transfer in minority achievement. The authors concentrated on the connection between community colleges and four-year institutions in urban settings. Site visits, essays, surveys and data analysis were techniques used to report on about 13 cities.

Many findings from this urban study provide a rich context for the questions asked in our own study of military service members. Richardson and Bender highlight faculty involvement in course comparability decisions, concern about the specialized and general education components of the associate in applied arts degree. They point to institutional efforts needed in the following areas: assessment of prior learning, open university degrees, external degrees, common transcripts, curriculum guides, and articulation coordinators. (46)

Institutions are not impervious to external factors. In fact many of these are the pressure points that affect faculty involvement and responsibility in transfer decisions, change in admissions requirements and expectations of academic preparation of entering students, for example, competition from the diverse and increasingly comprehensive nature of other institutions, job market shifts, theory about teaching and learning, assessment and concern for the adult learner.

State Policies

A survey of state contacts in 11 states was an important first step in the process of understanding transfer issues. Most states have some articulation guidelines, some more sophisticated than others, as is described in the report on Articulation Between Degree Programs and Appendix B. What is missing from most are guidelines of good practice or recommendations for resources that address the problems of military personnel. Three states in our group recommended credit be awarded for military education and training: California, North Carolina, and Illinois. North Carolina recommends the ACE-published guide and SOC. Illinois reported a new memorandum of agreement between community colleges and the military, patterned after SOC.

Most states also referenced credit earned in nontraditional programs or awarded in nontraditional ways (military or work) in their articulation guidelines and literature. At the same time, the interviews with state contacts raised the issue that states are very conservative regarding nontraditional education.

In general it can be said that state systems or sectors do not maintain comprehensive data on transfers and certainly not on military personnel as transfers. State contacts are concerned with the increasing specificity of general education curricula, the problems of transfer of vocational/technical degrees and courses, and changes in professional standards that affect transfer into impacted programs.

While not referring to the military servicemember in particular, the state contacts described students who fall outside the traditional articulation guidelines as the most at risk of difficulty in transfer. State activity that is helpful to the servicemember includes the designation of articulation coordinators, computerized articulation information systems for student advisement, and support for networks such as SOC. Although some were generally aware of SOC, the state contacts indicated that any activity related to SOC is happening at the institutional level.

Recent Trends in the Transfer Process

Interest of Accrediting Agencies in Transfer Issues

The emphasis on assessment of student outcomes that is gripping the nation's postsecondary institutions has also become an interest of the voluntary system of institutional and programmatic improvement: accreditation. One regional accrediting agency has already become highly visible in the field in its requirements and technical assistance to institutions regarding the collection and use of outcomes data.

Another outgrowth of the assessment movement concerns specialized accrediting agencies. Some of these are experimenting with developing valid measures of competence in professional programs. All agencies are looking at the difference between accreditation recommendations and program improvement recommendations.

How does this relate to the issue of transfer? The Presidents Policy Assembly on Accreditation (PPAA)--one of the three assemblies within the Council on Postsecondary Accreditation (COPA)--has made a recommendation this year to the COPA board that it look at the standards of recognition for agencies in this regard. A suggestion has been made that the committee consider including a provision that goes to what some people feel is the heart of the transfer issue--access. In other words, should accrediting agencies take a look at how the institutions and the programs they accredit are ensuring access for qualified students?

One part of the answer would require institutions and programs to demonstrate that qualified students who wish to transfer credits from a variety of traditional and nontraditional settings are treated fairly. This issue of credit applicability and validation of learning is one among many driving the current controversy in accreditation of business education.

Additional Involvement of State Agencies

State authorities are primarily interested in the issues of articulation and transfer as they relate to enrollment planning and minority achievement. To become more actively involved where the military are concerned, state authorities would have to take steps to support the acceptance and award of credit for military-sponsored learning and to improve communications between state, institutions, and military representatives.

A problem with state involvement is that it cannot address the diversity of patterns represented among transfers. Thus, institutional agreements are still needed, and so is a comprehensive source of information that records these agreements and provides guidance.

Experiments in Improving Transfer

A number of agencies and foundations have been involved in supporting innovative agreements, services, and tracking innovations that help the transfer student and improve the transfer process. Some of these innovations are:

(1) **Centers on Transfer**: In California, these are found on selected community college and university campuses. They consist of a small facility with information and assistance to transfer students. Project ASSIST is an interactive computerized information system used in the centers that contains information on course and program articulation and allows students to assess transferability of courses.

(2) **Articulation Coordinators:** Quite a few states have designated articulation coordinators who are responsible for information, assistance and appeal. In our survey of state policies we found coordinators in California, Florida, Illinois, Maryland, South Carolina, Texas and Washington. In some states the coordinators meet regularly and are asked to make recommendations that affect transfer policy.

(3) **The Urban Community College Transfer Opportunity Program (UCCTOP):** A Ford-funded project in which a number of articulation agreements between 4-year and 2-year institutions were sponsored to follow, inform, and improve all elements of the transfer process.

(4) **Servicemembers Opportunity Colleges(SOC):** A membership of approximately 600 institutions, 177 of these are joined in networks organized around discipline/degree programs. Guidelines developed and published in the SOC Guide reinforce a smooth process of transferability of credits for that program for current servicemembers. The SOC materials and guides are the support that help military personnel complete their degrees.

(5) **Curricular Innovations:** The City University of New York (CUNY) Transfer Express model is a three-year project for A.A.S. transfer students at selected colleges within the university system. The project is supported by a grant from the Fund for the Improvement of Postsecondary Education (FIPSE) and is designed to address the increased number of students with career oriented terminal degrees electing to enter 4-year institutions. This pattern of attendance is a substantial divergence from the tradition of A.A. and A.S. students being the largest cohort of transfers. The A.A.S. student comes to the transfer process at a disadvantage: fewer of their earned credits are typically accepted by 4-year schools (this is substantiated by interviews with both state and campus contacts).

The CUNY project will be trying to strengthen the academic preparation of A.A.S. transfers and assist their assimilation into the culture of the senior college or university by addressing students' writing, reasoning, and critical thinking abilities and exposing them to subject matter in the liberal arts. Special writing courses based in the disciplines of computer science and allied health and a history course with regional components will be developed. Faculty from community and senior colleges will be collaborating on the course development. Transfer advisement will also be an integral part of the project.

Technological Advances

Although technological advances have not received widespread use, there are several examples of how useful technology can be to the information dissemination central to the transfer of credits.

In Michigan, a group of 4-year and 2-year institutions established a computer system called ESCALATE, a library which holds information about course titles and equivalences. Institutions evaluated community college listings and information was stored about the amount of credit given, credit assignment, and comments about transferability.

Miami-Dade Community College has a system called AGIS: an advisement and graduation computerized information system that contains information about student progress, information about transfer requirements at upper division universities in Florida and to what degree these are being met by the student's record.

In West Virginia, a personal computer demonstration program has been developed called ICS that displays course equivalences, curriculum guide listings, computerized student transcript forwarding, an automated evaluation of the previously completed courses applicable to a student's chosen degree curriculum.

A network of records officers has been formed in Maryland and Virginia to share information about how to assess nontraditional credit. The Experiential Learning Assessment Network (ELAN) has particular interest in portfolio assessment and is associated with the information resources available through the Council for Adult and Experiential Learning (CAEL).

Summary

A great deal has been written about the process of transfer. Most of the research and policy resources refer to the traditional transfer student. However, there are enough indications about students who fall outside of this category to help—when combined with the results of our research—formulate some recommendations about the transfer problems of military personnel.

Transfer is the place where the transaction of currency occurs. Cultural features of the institution such as the curriculum, the faculty expectations of transfer students, and the acceptance or rejection of nontraditional learning provide a context in which to study the transfer process. The critical features of the transfer transaction are the documentation of learning that is brought or sent by the transfer, the expectations of the outcome of the transfer evaluation, and the institutional interest in the student.

Research has shown the quality of participation and demographics are changing in postsecondary education. This combined with strong interest in educational credentials acquired through other systems—the military, industry—will put pressure on the traditional policies and structures to adapt. Experience shows that any significant changes will be slow to occur. Therefore, the efforts to alleviate the problems experienced by military personnel in the transfer process must be focused on several problems at the same time.

First, both the military and educational systems should be able to devise and support a system of documentation of educational experience that is clear and easy to transport. Decisionmakers (registrars, education service officers) need adequate tools to advise and evaluate. If the information on transferability of courses is clear, if the documentation of learning is concise, mismatched expectations should be avoidable. Students who want to transfer bring a determination quotient into the formula. They should not be penalized for lack of information or tools at either end of the transfer process.

Second, extra-system supports such as SOC should probably be expanded, because they standardize procedures in a productive way, not proving harmful either to the institution's autonomy or to the student. When outcomes and paths to reach them are clear, students will be better prepared to attain their educational goals.

Third, support for the success of students should be expressed throughout the educational systems in this country. Every aspect of society stands to gain from an educated populace. The thousands of military personnel who are encouraged and supported to maintain their participation in higher education should be regarded as an asset. Institutions should have an interest in the potential of these nontraditional students.

The study undertaken and papers written for this project indicate that the tools and much of the knowledge is available. Providing the resources and findings in one place for decisionmakers and practitioners will hopefully facilitate movement toward some mutual goals. These are reflected in the project recommendations.

NOTES

1. Roslyn Korb, Nancy Schantz, Peter Stowe, and Linda Zimbler, Undergraduate Financing of Postsecondary Education (Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, May 1988).

2. Paula R. Knepper, Student Progress in College: NLS-72 Postsecondary Education Transcript Study, 1984 (Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, February 1989).

3. National Center for Education Statistics, Trends in Education: 1975-76 to 1995-96 (Washington, DC: U.S. Department of Education, March 1987).

4. Holly Hexter and Elaine El-Khawas, Joining Forces (Washington, DC: American Council on Education, October 1989).

5. Hexter and El-Khawas.

6. Dave Boesel and Kyle Johnson, The DOD Tuition Assistance Program: Participation and Outcomes (Arlington, Virginia: Defense Manpower Data Center, May 27, 1988).

7. Hexter and El-Khawas.

8. Hexter and El-Khawas.

9. Servicemembers Opportunity Colleges, unpublished tabulations (Washington, DC: 1989).

10. Hexter and El-Khawas.

11. National Center for Education Statistics.

12. Hexter and El-Khawas.

13. Boesel and Johnson.

14. Boesel and Johnson.

15. Hexter and El-Khawas.

16. Andrew Kolstad, The Educational Enrollments of Military Veterans: Evidence from a Longitudinal Study (Washington, DC: National Center for Education Statistics, February 1986).

17. Kolstad.

18. Melvin Kimmel, Glenda Y. Nogami, Timothy W. Elig and Paul A. Gade, "The One-Term Soldier: A Valuable Army Resource," Soldier Support

Journal, October-December 1986, pp. 4-7 and unpublished tabulations.

19. Elaine El-Khawas, Campus Trends, 1989 (Washington, DC: American Council on Education, July 1989).

20. Dorothy Knoell, Transfer, Articulation, and Collaboration Twenty-Five Years Later (Washington, DC: American Association of Community an Junior Colleges, forthcoming).

21. Charles Lenth, Presentation on Assessment from the States Perspective, at the Panel on Postsecondary Education, March 1989.

22. Knepper.

23. Samuel Peng (Research Triangle Institute Contractor Report), Transfer Students in Institutions of Higher Education, National Longitudinal Study of High School Seniors (Washington, DC: U.S. Department of Education and Welfare, National Center for Education Statistics, U.S. Government Printing Office, 1977).

24. Peng, p. 49.

25. Peng, p. 49.

26. Peng.

27. Peng, p. 10.

28. Peng.

29. Peng, p. 37.

30. Eva Eagle and C. Dennis Carroll (Contractor Report, MPR Associates), Postsecondary Enrollment, Persistence, and Attainment for 1972, 1980, and 1982 High School Graduates (Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, December 1988).

31. Eagle, p. 13.

32. Eagle, p. 21.

33. Eagle.

34. C. Dennis Carroll, College Persistence and Degree Attainment for 1980 High School Graduates: Hazards for Transfers, Stopouts, and Part-Timers (Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, January 1989).

35. Carroll.

36. Carroll, p. 26.

37. Knepper.

38. Knepper, p. 12.

39. Knepper.

40. James C. Palmer, "Sources and Information: Revitalizing Articulation and Transfer," in Kintzer (Ed.), Improving Articulation and Transfer Relationships (San Francisco: Jossey-Bass, Inc., September 1982, pp. 99-107).

41. Loretta Seppanen, A Study of the Role of Community Colleges in the Achievement of the Bachelor's Degree in Washington (State of Washington: State Board for Community College Education, January 1989).

42. Gerald R. Kissler, "The Decline of the Transfer Function: Threats or Challenges," in Kintzer (Ed.), Improving Articulation and Transfer Relationships (San Francisco: Jossey-Bass, Inc., September 1982, pp. 19-29).

43. Knoell.

44. Kissler.

45. Knoell.

46. Richard C. Richardson, Jr. and Louis W. Bender, Fostering Minority Access and Achievement in Higher Education (San Francisco: Jossey-Bass Inc., 1987).

47. Frederick C. Kintzer, Articulation and Transfer: A Review of Current Literature on Statewide and Interinstitutional Program Models and Trends (New Jersey: State Department of Higher Education, March 1989).

ARTICULATION BETWEEN DEGREE PROGRAMS

by

James C. Palmer

Senior Fellow
American Association of Community and Junior Colleges

Associate Director
Center for Community College Education
George Mason University

Prepared under Department of Defense (DoD) Contract No. MDA 903-88-C-0227 awarded to the American Council on Education (ACE) in consort with the American Association of State Colleges and Universities (AASCU), the American Association of Community and Junior Colleges (AACJC), and the American Association of Collegiate Registrars and Admissions Officers (AACRAO).

November 15, 1989

ISSUES IN PROGRAM ARTICULTION

by

James Palmer

Introduction

Program articulation involves, among other processes, the equation of courses and curricula offered at different institutions so that students can transfer from one college to another without losing time or credits in the pursuit of a degree or credential. As such, articulation balances conflicting ideals in American higher education. The first is institutional autonomy and the right of individual colleges to set degree requirements that may be quite different from those set by other institutions. The second is access to education and the right of students to pursue degree goals by moving freely from one segment of higher education to another. Those negotiating articulation agreements between colleges compromise the former for the sake of the latter.

Although American postsecondary education consists of many types of public and private institutions, articulation efforts often focus on links between four-year colleges on the one hand and community, techncial, and junior colleges on the other. Nowhere has the ability to balance institutional prerogative and student opportunity been more sorely tested. A primary problem stems from the multi-faceted, sometimes contradictory mission of the community college. Community colleges offer lower-division baccalaureate studies, thus keeping the door of higher education open for students who cannot initially enter four-year colleges or universities. But at the same time, community colleges are autonomous institutions, largely separate from four-year colleges and often charged with the unwritten responsibility of preserving the integrity of state university systems by screening away underprepared students. By meeting the demand for access to education through the creation of an independent system of community colleges rather than by loosening admissions standards to universities themselves, state policy makers made effective inter-institutional articulation an imperative and not simply a matter of student convenience.

Many efforts have been undertaken to ensure educational opportunities for community college transfer students while at the same time guarding the prerogatives of the university. Most of these efforts have focused on formal or informal articulation agreements, established either at the state or institutional levels. Others are broader in scope, seeking to mitigate the institutional differences between community colleges and four-year institutions, thus easing the students' transition from one institution to another, while at the same time making articulation agreements easier to establish and enforce. This paper focuses on the former, noting the strengths and weaknesses of formal agreements, particularly at the state level, and pointing out implications for the transfer of credit earned by military service personnel, a problem that is all but ignored by the literature and by state policy makers who play a large role in setting the parameters for articulation and transfer.

State/System Articulation

State efforts to ensure access to higher education through open admissions policies at community colleges have not been equally matched with efforts to ensure the educational mobility of students through effective articulation between two-year and four-year colleges. As Cohen and Brawer (1987) note,

> Although most states' publicly supported systems of higher education are organized to provide community college access to students who do not qualify for admission as freshmen to four-year colleges and universities, few have enacted explicit policies that guarantee access to the senior colleges after completion of the associate degree (pages 158-159).

The state policies that do exist have met with mixed success, leading many observers to conclude that although the state has a positive role to play, articulation is best carried out at the institutional level, with faculty from community colleges and four-year institutions hammering out articulation agreements on a program-by-program basis.

Kintzer and Wattenbarger (1985) identify several categories of state-level articulation efforts: formal and legally-based policies that have their roots in legislation or in guidelines issued by state higher education agencies; state system policies governing articulation between different segments of higher education (usually community colleges on the one hand and state colleges or universities on the other); agreements governing articulation between institutions in systems that encompass both four-year and two-year colleges (such as The City University of New York or The University of Nevada); and voluntary agreements among institutions and systems. One of the major intents of these policies is to ensure that articulation provides the community college student with a "2+2" sequence leading to the bachelor's degree: two years at the community college and two years at the university. In the eleven states that are the focus of this study, statewide articulation policies take on a variety of forms, usually--but not always--urging that transfer from community colleges to four-year institutions be tied to one or more of the following criteria: completion of the associate degree; completion of a general education sequence; or completion of a two-year "university parallel" program of study. Examples are summarized below:

California: Though California has the largest community college system in the United States, it has no statewide articulation compact, relying primarily on voluntary cooperation between sectors. As a result, both the University of California and the California State University system (CSU) have their own requirements for the admission of transfer students and the acceptance of their credit. The CSU policy, for example, stipulates that community college students may transfer with junior standing if they complete 56 "transferable" semester hours along with other college courses that may be needed to compensate for any missing college preparatory subject matter.

Texas: State law requires the Texas Higher Education Coordinating Board to specify a "basic core of general education courses, which, when offered at a junior college during the first two years of collegiate study, shall be transferable to all institutions of higher education in Texas . ." (Texas Education Code, Chapter 61.051, paragraph g). In response to this mandate, the Board publishes lower-division general education curricula for each of several majors, specifying that credits earned by students completing these curricula shall be transferable to the upper division (Texas Higher Education Coordinating Board, 1988).

Florida: Among other stipulations, the Florida Education Code (6A-10.024) guarantees the integrity (and the transferability) of the general education curricula established by each of the Florida institutions of higher education: "Once a student has been certified by such an institution . . . as having completed satisfactorily its prescribed general education core curriculum, regardless of whether the associate degree is conferred, no other state university or community college to which he or she may transfer shall require any further such general education courses." The code further stipulates that the "associate in arts degree is the basic transfer degree of the community college." Thus, community college A.A. degree graduates are admitted to the university with upper division standing and cannot be required to take further lower-division general education courses.

Illinois: Most Illinois colleges subscribe to the state's "articulation compact," which was passed in 1970 as a resolution of the Illinois Board of Higher Education. "The compact ensures that students who complete associate degrees designed for transfer are given junior standing at the university and that the lower-division general education requirements for a baccalaureate degree are satisfied" (Illinois Community College Board, 1989, p. 2).

Washington: Guidelines governing the transfer of credit between institutions of higher education in Washington are issued by the state's Intercollegiate Relations Committee (ICRC), comprised of transfer/articulation officers from each college and university in the state. Among other guidelines, the ICRC specifies a recommended sequence for the associate degree, urging that students who complete this sequence be admitted to four-year colleges with junior standing and that completion of the associate degree signify completion of baccalaureate general education requirements.

South Carolina: Transfer/articulation policies in South Carolina center around a published list of liberal arts and science courses which are taught at the seven technical colleges in the state that are authorized to award the A.S. or A.A. degree. The University of South Carolina will accept credit earned by students in those courses.

Maryland: Student transfer policies adopted by the Maryland State Board for Higher Education specify that community college students who complete an associate degree in a university parallel field of study, or who complete 56 credit hours in a university parallel program, shall be admitted to the university with upper-division standing. The policies further stipulate that universities must clearly specify the course semester hour requirements that community college students must follow in order to be admitted to the upper division in specific disciplines.

How well do these policies work? Very little research has been done to assess their impact on transfer opportunities for community college students. As a result, judgements about the efficacy of articulation agreements are extremely difficult to make. Noting the absence of a formally and legally based policy in California, for example, Cohen and Brawer (1987) assert that voluntary efforts in the state have yielded little improvement in articulation and transfer. However, Dorothy Knoell of the California Postsecondary Education Commission sees a more positive outcome: "We have no neat policies at this time and some describe our situation as pure chaos, but we still manage to transfer some 60,000 community college students each year to California's public and private colleges and universities!" (Knoell, correspondence with project staff).

The scant empirical evidence that is available raises concerns that state or system policies may not operate efficiently. In one study, Bender (1987) examined the records of 4,000 New Jersey community college students who transferred to the New Jersey state colleges between 1981 and 1985. He determined that only a minority of these students were admitted to the senior institutions with junior-level status; at two of the state colleges, over 98 percent of their undergraduate transfer students were actually admitted as freshmen. This led Bender to conclude that New Jersey's Full Faith and Credit Policy, which guarantees that the lower-division general education credits of community college associate degree graduates will be accepted in their entirety at the state colleges, does not provide the 2+2 sequence needed for effective articulation. His data also point to the fact that community college students transfer to four-year colleges at any point in the educational sequence and do not always wait to complete an associate degree (as many state policies assume or encourage).

Even when students complete an associate degree, however, articulation may not always function as planned. For example, in a transcript analysis, the City University of New York (CUNY) found that many liberal arts associate degree graduates from CUNY community colleges lost credit to CUNY senior institutions despite a system-wide articulation policy stipulating that all liberal arts and sciences courses should be transferable. Twenty-four percent of the graduates were awarded fewer than 64 credits toward their bachelor's degree upon transfer, and in some cases, students found that they could apply only 20 to 30 credits toward a four-year degree. CUNY's articulation policy had in fact not been fully implemented, because the senior institutions within the system viewed many community college liberal arts courses as vocational in nature or otherwise not applicable toward the baccalaureate (Bowles, 1988).

The failure of state- or system-imposed policies to effectively bridge the gap between community colleges and four-year institutions is a common theme in the articulation literature.

Those analyzing articulation and transfer cite several contributing problems. At best, these problems reveal state policies as insufficient articulation measures which must be augmented by other state and local efforts. At worst, they suggest that such policies may be counterproductive, laying down rules and regulations that may discourage innovative approaches to articulation, especially for nontraditional students, including military service personnel.

A Narrow Scope

One problem is the narrow scope of most state or system articulation policies, which are often limited to the issue of lower-division general education courses. This leaves many articulation questions unanswered, particularly in regard to admissions policies that govern the entrance of community college students to selective four-year colleges or to programs within those colleges. In an analysis of the Illinois Articulation Compact, for example, the Illinois Community College Board (ICCB) notes that the Compact

> does not address many aspects of the transfer process, such as acceptance of any major field degree requirements by the universities, admission to a specific program major at the upper-divison level, or admission requirements into the university. Therefore there is still a great need for students to select courses at the community college that will meet major field requirements at the university, and to make sure that all other criteria for admission to a specific program major are attained (Illinois Community College Board, 1989, p. 2).

The ICCB goes on to note that community college associate degree graduates who are seeking admission into high-demand programs such as business or engineering are treated inequitably. For example, transfer students in business administration programs at some Illinois universities do not have the same pre-registration privileges for required courses as native students. The ICCB calls on the "universities to develop a plan that provides spaces for qualified AA and AS degree graduates within the state's system of higher education" (page 9).

Knoell (forthcoming) argues that under these circumstances, "statewide mandates and agreements about the articulation of courses, programs and degrees may be little more than empty promises to potential transfer students who are then denied admission to the institution or program for which they have prepared" (p. 101). The extent of this problem has not been documented, but evidence of its existence cropped up in some of the telephone interviews project staff conducted with state education officials. For example, Joyce Hunter of the Maryland State Board for Community Colleges related that students sometimes fall through the cracks because they cannot find openings at the senior colleges of their choice. She cited the hypothetical case of a community college student majoring in engineering who plans a course of study with the expectation of transferring to the University of Maryland at College Park. The student's course may seem straightforward; all that is needed is to follow a program of study prescribed by the College Park campus. But at the time of transfer--perhaps three years after entering the community college--the College Park campus may have no openings in engineering. The student may then turn to another University of Maryland campus, only to find that his or her community college studies do not meet the requirements of that particular campus.

Nontraditional Students

A second problem lies in the fact that many state articulation policies--focusing as they do on the associate degree or the completion of a general education sequence--fail to meet the needs of nontraditional students who do not follow a sequential, academic course of study. Knoell (forthcoming) describes the problem:

> A potentially serious limitation of some statewide articulation agreements is their failure to take into account the heterogeneous nature of the community college transfer student population and the unlikelihood that a single route--the associate in arts degree--is necessary or desirable as preparation for transfer. To do so is to limit severely the opportunities for students who are (1) underprepared for college when they graduate from high school, (2) undecided about how much and what kind of postsecondary education they want, and (3) seeking education for employment while waiting to keep transfer as an option. Some community college students are ready to transfer before completing their degree program and should not be penalized for doing so; others want preparation for both employment and transfer and should have such opportunities open to them without undue duplication of coursework and completion of transfer requirements (p. 102).

As a result, many students fall outside the protection of articulation agreements. Particularly at risk are those students who have a smattering of credits and who have not completed an associate degree or other recognized credential. Despite the tendency of articulation policies to focus on general education or academic courses, accommodations can be made at the senior institution for vocational program graduates, sometimes through the provision of special degrees, such as the Bachelor of Engineering. But those who transfer without earning an associate degree pose a more difficult problem. They come to the four-year college with no institutional cachet, no credential certifying the completion of a coherent program of study. This makes it all the more difficult for receiving institutions to assess their educational backgrounds. The problem is compounded when students seek recognition for noncollegiate learning undertaken through adult schools, government-funded job-training programs, or the military (Knoell, forthcoming, p. 63).

In order to meet the needs of these students, colleges need the freedom to bend the rules where necessary, judging the merit of transfer applications on a case-by-case basis. There is a danger however, that some four-year colleges will use articulation policies and guidelines as an excuse for not being more flexible in admitting community college transfer students with nontraditional educational experiences. As the California Postsecondary Education Commission (1987b) warns, "The increase in statewide activity and mandated agreements does not appear to be producing improvements in articulation and transfer that are commensurate with costs and may in fact discourage the kind of local flexibility that makes it possible for some students with unconventional credits to transfer into baccalaureate programs" (p. 27).

If this is in fact true, the consequences may be serious, greatly limiting transfer opportunities for community college students, especially those majoring in technical areas, and for other students with nontraditional postsecondary backgrounds. As vocational curricula become increasingly technical in nature, for example, the demand for "2+2" programs offering baccalaureate opportunities to community college vocational students will grow, despite the fact that state/system articulation policies usually cover only students in the traditional arts and sciences (California Postsecondary Education Commission, 1987a; Prager, 1988).

Another challenge lies in the fact that community colleges are sometimes more likely to take a nontraditional approach to instruction, adapting courses to the needs of their diverse student clientele. For example, many community colleges have developed interdisciplinary courses, such as "humanism and technology" or "biology and the law," which do not have counterparts at the more traditional four-year college. In addition, community colleges have often geared traditional liberal arts and science courses to meet the needs of occupational students. Psychology and sociology courses, for example, are often specifically geared for criminal justice students, and science classes are often developed as part of the occupational programs provided for allied health students. Given this nontraditional bent, several observers (including Bowles, 1988; and Cohen and Brawer, 1987) point out that faculty working out articulation agreements must have the flexibility to go beyond the concept of strict course equivalence or "exact fit" in assessing the transcripts of community college transfer students.

Circumventing State or System Policies

A third problem lies in the fact that state or system policies, imposed from the top down, do not necessarily foster the collegial working relationships between community college and four-year college faculty that are necessary to work out articulation problems. Sometimes following the letter of the law and not its spirit, many four-year college educators go their own way, circumventing articulation policies that, rightly or wrongly, are seen as threats to institutional integrity. As a result, community college educators often complain that they are supplicants who must satisfy the changing demands of four-year institutions and not equal partners in the articulation process.

The literature cites several ways in which four-year colleges thwart articulation policies imposed by state or system offices. Some four-year colleges may simply give their own interpretation to articulation guidelines, making it difficult to determine how these policies will affect the transfer of credit. Articulation problems at the City University of New York, discussed above, are a case in point. Although CUNY policy stipulates that all community college liberal arts courses should transfer, the senior institutions have sometimes been reluctant to do so, because many of the courses are viewed as vocational in nature and not applicable to the bachelor's degree (Bowles, 1988). As a result, liberal arts associate degree graduates at CUNY have often lost credit upon transfer, because they could not be sure which liberal arts courses would transfer and which would not.

Another alleged practice among four-year colleges is to require additional general education courses in the junior and senior years, thus thwarting articulation policies that guarantee the transfer of lower-division general education courses completed by associate degree graduates. The Illinois Community College Board (1989) traces the root of this problem to perceived differences in the quality of general education programs offered at different community colleges:

> Although most universities accept the fact that community colleges have slightly different course distributions within their general education requirements, some are concerned when a few community colleges do not keep their general education requirements up to date. More specifically, universities are concerned when the general education requirements at some community colleges do not include at least 38 semester hours of general education coursework, a course in non-western culture, a course in speech in addition to two or more composition courses, two science courses with at least one being a laboratory science course, and a separate category for mathematics (Illinois Community College Board, 1989, pp. 4-5).

The ICCB goes on to note that "while some general education coursework at the upper division may be beneficial, a large proportion of general education courses at this level makes it necessary for transfer students to retake courses that have been completed at the lower division." (p.5).

The tendency of four-year colleges to "go their own way" in assessing the tranferability of credits was a common complaint among interviewees at state community college offices. Paul Parker of the Florida Division of Community Colleges noted that despite the state's common course numbering system, decisions about course transfer vary greatly from institution to institution. As a result, community college courses are not always accepted for transfer credit at four-year institutions, even though they may appear to be "transferable" according to the course number system. While this makes it difficult for community college students to plan their programs of study, Parker was quick to point out that the discretion universities use in assessing credit may work to the advantage of students who request that credit be granted for vocational classes and other learning experiences not usually covered by state articulation agreements. In some cases, the universities will favorably view the student's prior learning. The extent to which this discretion is used positively to promote access for nontraditional students remains unknown.

State/System Articulation: Summary

State-level articulation efforts can do much to improve transfer from community colleges to four-year institutions. State leadership in Florida, for example, has given inter-institutional articulation a high priority at all levels of education, leading educators to augment the state's basic articulation agreement with common reporting schemes for all colleges and a new Student On-Line Advisement and Articulation System (SOLAR) (Palinchak, 1988). As another example, Illinois' 19-year-old Articulation Compact has been recognized as a positive influence on the community college transfer function, encouraging, if not requiring, universities to work cooperatively with community colleges to improve articulation and provide follow-up information on community college transfer students (Illinois Community College Board, 1989, P. 14).

But the literature tends to the conclusion that state and system-wide policies do not of themselves provide community college students with a smooth two-plus-two sequence leading to the baccalaureate. Mitigating factors include the following:

- Many policies cover program or course articulation without attending to admissions problems that affect the entrance of students from community colleges to four-year institutions.

- State/system policies are variously interpreted by four-year colleges, often leaving students unsure as to what courses will transfer.

- Imposed from the top down, state/system policies do not necessarily satisfy the concerns four-year college educators have about perceived differences in the quality of general education provided by community colleges. This may lead four-year colleges to circumvent state policies by adding hidden requirements, such as upper-division general education courses.

- State/system policies often recognize only the traditonal, linear academic path to the baccalaureate and make few provisions for nontraditional students who come to the university with a vocational degree or without any associate degree at all.

- Such policies do not provide for the transfer of nontraditional courses that may not have clear-cut equivalents at the university.

The extent to which these limitations hinder educational mobility depends on the extent to which state/system policies are viewed as absolute regulations or as a baseline upon which institutions can build further policies as needed. There is a danger that the former applies. As the California Postsecondary Education Commission (1987b) concludes:

> The type and scope of agreements about the articulation of programs and courses that can be reached statewide by all public colleges and universities tends to be quite limited, and institutions that might otherwise feel obligated to work out specific agreements with feeder community colleges may use the statewide agreements as an excuse for discontinuing regional or local activities which lead to agreements (p. 27).

This will not bode well for military service personnel and others seeking credit for nontraditional learning.

Local Articulation Agreements

Despite their importance in filling the gaps left by state and system policies, local articulation agreements negotiated between individual universities do not receive as much attention in the literature. But the few local agreements that are discussed reveal that articulation problems, however difficult, can be ironed out when top college administrators make articulation and transfer a priority. When four-year colleges actively court community college transfers, including them in college admissions and marketing plans, articulation almost always follows, even in the case of vocational program graduates and other students who are not normally considered to be on the baccalaureate track.

The New Jersey Institute of Technology (NJIT) is a case in point. Bender (1987) cites NJIT as New Jersey's signal example of commitment to articulation:

> The good news is that one instituion in the state appears to be playing the game utilizing the best working principles. There is an institutional commitment from the NJIT Central Administration. A deliberate structure and mechanism has been designed to program for as well as recruit associate degree transfers. Articulation issues are worked out on a peer-to-peer level rather than the judge and jury posture reported by Rutgers. Mechanisms have been developed to facilitate transition for the transfer student comparable to the transition efforts made for first-time-in-college students. An ombudsman function is provided so that grievances can be addressed. Finally, ongoing monitoring together with feedback to the two-year college affords an opportunity for quality enhancement at both levels (p. 38).

As Bender notes, a key feature of NJIT's articulation policy is close, "peer-to-peer" communications with the state's community colleges. "NJIT has been a host to department chairs and faculty of the county colleges and clear agreements on course requirements, content emphases, standards, grades, and related information are discussed and then formalized agreements are signed by both institutions" (page 24).

This close communication has allowed NJIT to overcome many common articulation problems. For example, the college offers an applied technology program that accommodates community college graduates with Associate in Applied Science degrees, which "are popularly identified as occupational or career programs intended to prepare graduates for job entry....The NJIT program results in a 2+2 for such graduates who can proceed on to the baccalaureate level in the 'applied/practical' emphasis" (p. 26).

As another example, Thomas (1988) describes how NJIT was able to overcome two potential threats to smooth articulation in the field of engineering: (1) the passage of revised community college general education requirements by the state board of higher education that "mandated certain courses at the two-year level ordinarily found at NJIT in the third or fourth year," and (2) policies from the Accreditation Board for Engineering and Technology making "it quite clear that NJIT was responsible for all four years of its education programs in technology even if it offered only the last two years of the program" (p. 52). Efforts were undertaken immediately to work out these problems:

> Because of the avenues of communication that had developed between NJIT and the community colleges over the years, it was possible to resolve these conflicts by meeting with the community colleges as a group and as individual institutions. Meetings between the faculties of the respective schools formalized mutually agreed upon course-by-course equivalences for all articulated programs...and individual articulation agreements were modified to accommodate the general education requirements imposed by the state on the community colleges (pp. 52-53).

Articulation agreements built from the ground up, like those implemented at NJIT, help bridge the gap between the stated goals of articulation policies and their operation in actual practice. Bowles (1988) illustrates this in her analysis of articulation efforts undertaken between the community colleges and the senior institutions of the City University of New York (CUNY). Faculty-based articulation task forces within individual disciplnes have been established at CUNY to improve transfer opportunities for community college liberal arts students. The task forces made several recommendations to smooth student flow to the baccalaureate. But there was a more important outcome:

> ...the meetings between faculty led to a gradual erosion of the status-consciousness and elitism that prevails within the senior colleges and to a breaking down of the barriers that preclude effective communication. The feeling of community colleges...as being that of "beggars," began to dissolve. Having faculty from each of the seventeen colleges meet face to face and address problems in an open and neutral environment helped to minimize residual arrogance and elitism, however subtle it might be. The task forces also increased the awareness among faculty of the complexities and realities involved in implementing seemingly small changes throughout a university system as large and complex as CUNY (p. 37).

Numerous community colleges have developed articulation agreements with neighboring universities, regardless of the presence or absence of a state articulation policy (Cohen and

Brawer, 1988, pp.162-163). In many cases, these articulation agreements grow out of an interdependency between community colleges and four-year institutions. Knoell (forthcoming) points to the Maricopa County Community Colleges and Arizona State University as an example. Each is dependent upon the other,

> The former on opportunities for their graduates to complete baccalaureate degree programs and the latter on transfer students to enroll in upper-division programs--and good articulation agreements arrived at cooperatively and voluntarily promote and enhance this interdependence. Agreements [between the two] include course equivalency guides, articulation of specific degree programs, and the electronic transmission of community college transcripts (pp. 22-23).

But much still needs to be done at other institutions to build the strong articulation agreements that are characteristic of NJIT, CUNY, and the Maricopa County Community College. In a national survey of 835 community colleges and four-year institutions, Walton (1984) found that fewer than half had written agreements regarding transfers of credit and that, of those agreements in force, half were formal articulation agreements and half were simply lists of acceptable courses. She also found that over two-thirds of the four-year institutions did not accept the associate of arts degree without evaluating courses individually. Remedying this situation will require community college and four-year college faculty to work more closely together than they have in the past.

This will not solve, however, the problems faced by military personnel who seek to transfer credits earned at a variety of geographically dispersed schools or colleges. Unless these students are enrolled in the associate degree (SOCAD) program of Servicemembers Opportunity College (SOC), they fall between the cracks, receiving no protection from state agreements (which rarely mention military personnel) or from the articulation agreements hammered out by neighboring colleges. In the absence of this protection, little is known about the success of these students in applying their prior learning to degree programs.

Conclusion

Articulation agreements, whether they are hammered out at the system, state, or local levels are only part of the articulation process. Enhancing the flow of students from community colleges to four-year institutions will require a wide range of efforts to strengthen the community college transfer function generally. As Colby and Hardy (1988) explain,

> These efforts have extended beyond the articulation and transfer of course credits. Community colleges have become involved in programs to improve the academic skills of high school students before they enter post-secondary education; in agreements that use student competencies as the basis of course and program articulation; in activities aimed at identifying, assessing, and tracking potential transfer students early in their postsecondary careers; and in the development of information systems to monitor and promote students'academic progress (p.89).

These broader issues are described indepth by Cohen and Brawer (1988), Donovan and others (1987), and Palmer (1986-87).

Nonetheless articulation agreements have the potential to play an important role. When all parties have a hand in their development, they provide the compromise between student rights and institutional prerogative that is necessary to the success of the community college transfer function. They can also provide students with at least some guidance and information needed to plan a program of study. And some articulation agreements, such as those developed with the New Jersey Institute of Technology, demonstrate that nontraditional students--including those in so-called vocational programs--can be successfully accommodated in the upper division at four-year colleges.

It is doubtful, however, that articulation policies assist military service personnel or other nontraditional students who do not follow a linear path through the state's higher education system. Articulation policies are simply not designed with these students in mind. At the state level, policy makers are concerned with the flow of students within and between components of state higher education systems; hence the overwhelming focus on issues surrounding transfer from community colleges to four-year institutions. At the local level, articulation is usually a matter of mutual self-interest, with four-year colleges and surrounding two-year institutions dependent upon each other for students. Unless colleges have an incentive to enroll military service personnel, either through the presence of a nearby military base or through active and successful participation in the Servicemembers Opportunity Colleges (SOC) system, college administrators will do little to evaluate the nontraditional learning of servicemembers and award degree credit for that learning.

This is born out by the current study. The telephone survey of state policy makers, for example, revealed that those responsible for articulation know little about the needs of the military; astoundingly, few were familiar with the SOC system.

At the institutional level, college representatives reported that articulation agreements, where they exist, focus primarily on linkages between two- and four-year institutions; SOC was rarely mentioned, and strong ties with the military were reported primarily by those institutions within close proximity to military bases. Some colleges reported that they did not, as a matter of policy, award degree credit for non-collegiate, military training, and several others indicated that faculty often balked at accepting any nontraditional learning. When colleges did make an effort to evaluate the training and education of military service members, registrars reported that they were often frustrated by imcomplete and confusing transcripts that provide little information beyond abbreviated course titles. Who can say how many credits students lose because colleges do not have the information they need to judge the relevance of military training to college curricula and degree programs?

The transcript analysis provides further support for the hypothesis that nontraditional students do not fare well in articulation and transfer. Findings reveal that colleges were most likely to accept traditional courses in the liberal arts and sciences. Training offered by the military was least likely to be accepted for degree credit, while college courses in career-related areas fared only slightly better. In all cases, very few credits were applied toward the student's major; when credit was accepted, it was usually applied only toward general education or elective requirements.

It must be stressed that these observations reflect general tendencies only. Though most colleges shied away from awarding credit for military education and training, some colleges responded quite favorably, especially those with close ties to military bases. In fact, the handful of participating colleges that are located next to military bases invariably reported few or no problems in evaluating military transcripts. Just as articulation between colleges is most successful when agreements are hammered out at the local level, the articulation of military training with collegiate programs is best facilitated by face-to-face meetings between college staff and military personnel.

In light of the fact that most colleges are not near military bases, what can be done to assure that the nontraditional learning of military service personnel is fairly judged by colleges and universities? Improved documentation and information is a major part of the answer. Registrars and college admissions officers with little understanding of the military need to know the content of military training in order to judge its applicability to college degree programs. Moreover, without improved documentation, many faculty and department heads will remain unconvinced of the legitimacy of awarding college credit for non-collegiate military training. Institutional flexibility is another important factor. Regardless of the documentation used, military service personnel will not fare well if prescriptive state articulation policies preclude the award of credit for nontraditional learning. Policy makers should take military service personnel and other nontraditional learners into consideration when developing articulation mandates. Increased visibility for the Servicemembers Opportunity Colleges (SOC) system is also important. Despite years of operation, SOC is one of the best-kept secrets in higher education. An astoundingly high proportion of college educators and policy makers have not heard of SOC and do not realize that its policies constitute a tested model for the articulation and transfer of military training into higher education. Finally, incentives to matriculate military service personnel will play no small role. If colleges feel no need to enroll military personnel, little will be done to eliminate unwarranted obstacles to the award of college credit for military training. Colleges need to know that military service members constitute a large and talented pool of prospective students.

The key to the articulation of military and collegiate education, in short, lies not in existing articulation policies, (reviewed earlier in this paper), but in efforts to inform college personnel about the academic legitimacy of military education, preserve the flexibility required by institutions to award credit for nontraditional learning, promote successful models (such as SOC), and increase college incentives to enroll military service personnel. These efforts will require increased communication between the education and military communities; this is especially important at colleges that are not near military bases and that do not have a long history of involvement with military service personnel. Improved communication will do much to foster the requisite compromise between the rights of military service personnel as students and the prerogatives and degree integrity of individual colleges.

References

Bender, L. W. *Transfer and Articulation Among the Public Institutions of Higher Education in New Jersey. A Report to the Chancellor*. Tallahassee: Florida State University, 1987.

Bowles, D. "Transferability in the Liberal Arts and Sciences." In C. Prager (Ed.), *Enhancing Articulation and Transfer*. New Directions for Community Colleges, No. 61. San Francisco: Jossey-Bass, 1988.

California Postsecondary Education Commission. *Articulating Career Education Programs from High School through Community College to the Baccalaureate Degree*. Commission Report 87-48. Sacramento: CPEC. 1987a.

California Postsecondary Education Commission. *Strenghtening Transfer and Articulation Policies and Practices in California's Colleges and Universities Progress Since 1985 and Suggestions for the Future*. Commission Report 87-41. Sacramento: CPEC, 1987b.

Cohen, A. M., and Brawer, F. B. *An Assessment of the Urban Community Colleges Transfer Opportunities Program*. Los Angeles: Center for the Study of Community Colleges, 1988.

Cohen, A. M., and Brawer, F. B. *The Collegiate Function of Community Colleges*. San Francisco: Jossey-Bass, 1987.

Colby, A. Y., and Hardy, M. "Sources and Information: Policy and Practice in Articulation and Transfer." In C. Prager (Ed.), *Enhancing Articulation and Transfer*. New Directions for Community Colleges, No. 61. San Francisco: Jossey-Bass, 1988.

Donovan, R. A., and others. *Transfer: Making It Work*. Washington, D.C.: AACJC, 1987.

Illinois Comunity College Board. *Current Issues in Transfer Articulation Between Community Colleges and Four-Year Colleges and Universities in Illinois*. Springfield, ICCB, 1989.

Kintzer, F. C., and Wattenbarger, J. L. *The Articulation/Transfer Phenomenon*. Washington, D.C.: AACJC, 1985.

Knoell, D. M. Transfer, Articulation and Collaboration Twenty-Four Years Later: A Restudy of Relationships Between Two- and Four-Year Institutions. Washington, D.C.: AACJC, forthcoming.

Palinchak, R. S. "Articulation Florida Style." In C. Prager (Ed.), Enhancing Articulation and Transfer: New Directions for Community Colleges, No. 61. San Francisco: Jossey-Bass, 1988.

Palmer, J. "Bolstering the Community College Transfer Function." Community College Review, 1986-87 14 (3), 53-63.

Prager, C. "The Other Transfer Degree." In C. Prager (Ed.), Enhancing Articulation and Transfer. New Directions for Community Colleges, No. 61. San Francisco: Jossey-Bass, 1988.

Texas Higher Education Coordinating Board. Transfer of Credit Policies and Curricula. [Austin]: The Board, 1988.

Thomas G. "Transfer Relationships Between Two-Year and Four-Year Technological Programs." In C. Prager (Ed.), Enhancing Articulation and Transfer. New Directions for Community Colleges, No. 61. San Francisco: Jossey-Bass, 1988.

Walton, K. D. "Articulation: Transfer Agreements, Minimum Grades Acceptable on Transfer Courses, and Transferability of Associate Degrees." Community/Junior College Quarterly of Research and Practice, 1984, 8 (1-4), 169-184.

The Designation of Nontraditional Learning on Academic Transcripts

by

Wayne E. Becraft, Executive Director
American Association of Collegiate Registrars
and Admissions Officers

Prepared under Department of Defense (DoD) Contract No. MDA 903-88-C-0227 awarded to the American Council on Education (ACE) in consort with the American Association of State Colleges and Universities (AASCU), the American Association of Community and Junior Colleges (AACJC), and the American Association of Collegiate Registrars and Admissions Officers (AACRAO).

November 15, 1989

The Designation of Nontraditional Learning on Academic Transcripts

Introduction

The transferability of academic credit for nontraditional education programs is in many ways related to the transcripting or recording of the learning. This paper will discuss the various forms of nontraditional learning, typical ways in which they are transcripted, problems related to transcripting that can affect the acceptance of nontraditional credit, and some proposed solutions to those problems.

The Transcript

The transcript in this document refers to the academic record of the student at a particular institution, as well as, the document that is forwarded to other institutions, persons or agencies for their use in reviewing the student's academic performance. It is an unabridged chronology of the students attempts at learning reflecting the quantity and quality of the learning experiences (AACRAO 1984, 4-5).

Nontraditional Learning

Nontraditional learning is learning that takes place free of space, place and time limitations. It does not require a campus or even a building to house it. And it does not have the time constraints usually associated with "traditional" education. It may take several forms: (1) learning that does not take place under the auspices and supervision of a formally recognized institution of higher education is considered non-traditional learning; (2) but learning that does take place under the auspices and supervision of a higher education institution may also be considered nontraditional if it differs significantly from the other formal education programs offered by the institution; (3) in addition, courses offered under independent study arrangements (where students are not required to attend formal classes or meet regularly with the instructor) taken by students enrolled in a college or university also are considered a form of nontraditional learning (Gould and Cross 1972, 14).

A Brief History of the Evolution Toward Nontraditional Education Programs.

In order to understand nontraditional education so there can be a discussion of the transcripting of credit earned in this manner, it is helpful to have a general knowledge of the various forms of nontraditional education.

Experiential Learning

This is no doubt the oldest form of learning. Experiential learning can occur anywhere at anytime, through employment, volunteer activities and individual activities, projects or research. The knowledge gained through life experiences can be of immediate and/or long term benefit without any formal recognition or inclusion in a degree program.

Tools for evaluating experiential learning have been in existence for a long time, in some cases longer than the formal education system. Apprenticeships, internships, work/study programs, cooperative education, studio arts, laboratory studies, and field experiences all involve experiential learning (Kolb 1984, 5).

Among undergraduate institutions, Brooklyn College in 1954 was perhaps the first to award credits to adults on the basis of the assessment of previous experience. The University of Oklahoma in 1957 designed the first new baccalaureate degree for adults that wholly abandoned the credit structure (Keeton 1976, 32).

As more and more older students have returned to colleges and universities in the last two decades, the interest in applying learning acquired through life experiences to formal educational programs has increased dramatically. To respond to both the opportunities and the concerns the Cooperative Assessment of Experiential Learning (CAEL) project was established in 1973 in cooperation with the Educational Testing Service (ETS) to create and implement practical and valid methodologies for assessing what people have learned from their prior work and life experience (Kolb 1984, 6-7).

As a result of the efforts of CAEL (now Council for Adult and Experiential Learning), many colleges and universities now have programs to assess and award credit for experiential learning.

Although a fairly large number of schools award credit for experiential learning, the practice is by no means universal. Since the awarding of experiential learning credit is not universal, and the acceptance of experiential learning credit in transfer is practiced even less, it is often difficult for students to transfer this type of credit.

In addition, many institutions that do accept credit for experiential learning in transfer, place a limit on the number of credits for this type of learning that they will accept toward their degree program.

Credit By Examination

One of the earliest known programs of assessment through testing was developed in China. In the second century before Christ the Chinese developed examinations for leadership in the national public service. This system of assessment continued for more than two thousand years until it was abolished in 1905 (Keeton 1976, 20).

Colleges and universities in the United States had entrance tests in the 1800s. Their use was considered to be universal at that time but each college had its own tests. Concern among many that the tests were a reflection of the professors' eccentricities and full of tricks and traps for the students, resulted in the creation of the College Entrance Examination Board to give a common, and better, set of examinations for college entrance (College Entrance Examination Board 1970, 14-15).

Another thrust toward change came with the development of the General Educational Development (GED) test at the secondary level. Results showed that seventy percent of graduating seniors who comprised the norming sample for the GED test could earn a GED diploma, 30 percent could not. In other words about as many could earn a diploma by passing the GED test as those who secure diplomas in the usual way.

Perhaps the most familiar of the examinations to establish credit is the College Level Examination Program (CLEP). There are five general examinations and 30 specific Subject Examinations to choose from. The General Examinations in English Composition, Humanities, Mathematics, Natural Sciences, and Social Sciences and History test the knowledge you have accumulated in these broad areas of study. The tests are at the level of courses you would take in your first year or two of college study. The 30 subject-area tests let you demonstrate the specific knowledge and skills you may have gained through job experience, outside course work, or specialized independent reading. These examinations require a higher degree of specialized knowledge and training (College Entrance Examination Board 1987, 3).

The American College Testing Program (ACT) offers a program very much like that of the College Board. It is called the Proficiency Examination Program or PEP.

The Defense Activity for Non-Traditional Education Support (DANTES) offers a similar series of tests for personnel in the armed forces. The DSSTs (DANTES Subject Specialized Tests) are offered through military education and testing centers worldwide. The tests also are available for use in institutional testing programs (American Council on Education 1988, 2-1).

Advanced Placement (AP) Examinations were developed by the College Entrance Examination Board in the 1950s as a way to encourage able students to do college-level work while they are still in high school. The examinations provide a mechanism by which successful students can be placed ahead or awarded credit or both after admission to a college or university (College Entrance Examination Board 1970, 25).

Advanced Placement Examinations are widely used in the U.S. for placing students ahead in their programs. They are also used, but less widely, for the awarding of credit.

Many colleges and universities in the United States have departments that have developed their own examinations. These are often called end-of-course examinations or examinations to establish credit. Unfortunately, the problems that led to the development of standardized examination programs, such as CLEP and PEP, still plague institutional programs. The quality is not uniform and the selection of examinations available is spotty and varies from institution to institution.

Credit by Examination is widely accepted by colleges and universities. HOwever, colleges and universities vary in their acceptance of credit by examination in transfer from other institutions. Where it is accepted institutions usually put a limit on the number of credits, earned in this fashion, they will accept toward their degree program.

Independent Study/Home Study/Correspondence Study/Distance Learning

This type of program enables students to engage in the self-directed pursuit of academic competence in as autonomous a manner as he/she is able to exercise at any particular time.

Independent study courses are offered at traditional colleges and universities. One or more courses that involve research, field work, etc. may be taken by a student seeking a traditional degree. Such courses provide a degree of freedom for the student although the student will still work with a faculty member or advisor. The number of such courses is larger at the graduate level.

The Designation of Nontraditional Learning on Academic Transcripts

Correspondence or home study may be defined as instruction offered through correspondence which requires interaction between the student and the instructing institution. Cyril O. Houle in a definition for the *Encyclopaedia Britannica* specified five components of correspondence instruction: (1) specially prepared materials, written in self-explanatory fashion and arranged in a series of lessons; (2) supplementary printed and other materials; (3) a series of exercises to be worked out by the student; (4) the evaluation of these exercises by a competent instructor with the student being informed of the evaluation . . . and (5) a final examination over the whole course (MacKenzie, Christensen, Rigby 1968, 4).

Correspondence study developed for several reasons. The need for education and training, the limited availability of institutions to accommodate all of the needs, and geographical separation of people seeking education from colleges and universities.

The person most responsible for the acceptance of correspondence study in the United States was William Rainey Harper. As a teacher at Baptist Theological seminary in Morgan Park, Illinois, Harper was concerned that the institution did not have the facility to serve all of the students wishing to take his courses in Hebrew. As Harper moved to Chautauqua University, Yale Divinity School and the University of Chicago, where he was appointed president, his correspondence school moved with him. At Chicago he established a university extension division that included provisions for correspondence instruction. Although the program met with serious academic opposition, it continued until 1964 (MacKenzie, Christensen and Rigby, 1968).

Several other universities began offering forms of correspondence instruction and many continue to do so today along with numerous private and religious organizations. However, correspondence study still remains the subject of much debate.

Correspondence study programs were made available to military personnel through the Army Institute, founded in 1941, which later became the United States Armed Forces Institute (USAFI) when its services were extended to the other branches of the Armed Forces. Today the Defense Activity for Non-Traditional Educational Support (DANTES), created in 1974 to replace USAFI, continues to offer a wide range of correspondence courses.

Today, there is a new addition to the vocabulary of educational terminology, distance learning. Distance learning is wider than correspondence study in that it applies also to media other than the written and printed word. The basis of distance study is normally a pre-produced course which is usually printed but which may also consist of presentations by media other than the written word, for instance audio- or video-tapes, TV or radio programs, experimental kits or computer-based media (Holmberg 1981, 11).

While distance study has the same characteristics as correspondence study in that it serves the individual and it involves interaction with the institution providing the study, it provides opportunities to experience sight and sound and, in the case of the computer, immediate interaction, that cannot be found in printed media. This fact plus the wide availability of TVs, audio- and video-tape recorders, and personal computers in U.S. homes will undoubtedly lead to the growth of this type of study and have an impact on its availability and acceptability in the future.

The National Home Study Council accredits institutions and organizations offering this type of study and is a member of the Council on Postsecondary Accreditation (COPA). This provides encouragement for institutions to accept the credit, but acceptance is still not universal.

Military Education and Training Programs

Military education and training is not new. There have been education and training programs as long as there have been soldiers. However, in most cases these programs were connected exclusively with the preparation of soldiers for their military duties. What is relatively new is the offering of courses leading to a college degree through the military and the awarding of college credit for military training and military occupation specialties.

The Army Institute was founded in 1941 on the premise "that citizens in military uniform are interested in continuing their civilian education." In 1943 its services were extended to the other branches of the Armed Forces and its name was changed to the U.S. Armed Forces Institute (USAFI). USAFI did not engage in military training and it was entirely separate from the instructional programs run by each of the armed forces for training purposes.

USAFI engaged professional educators in the preparation of courses. By 1964 approximately two hundred correspondence courses were offered directly by USAFI in elementary, high school, college, and technical or vocational subjects. Other correspondence courses were made available to USAFI students through contract with the extension divisions of some forty participating colleges and universities (MacKensie, Christensen, Rigby 1968, 35-36).

The Designation of Nontraditional Learning on Academic Transcripts

USAFI was disestablished in 1974. The Defense Activity for Non-Traditional Education Support (DANTES) was created in May of that year to carry on the tradition of providing support to the voluntary education programs of all military services (American Council on Education 1988, 2-1). It continues to provide that support today through correspondence study, testing programs and other activities.

In 1945 the Commission on Educational Credit was established by the American Council on Education in cooperation with the Department of Defense. The Commission, now the Commission on Educational Credit and Credentials, prepares credit recommendations for learning acquired through military educational experiences. The educational experiences are evaluated by civilian educators, experts in the academic areas concerned, who serve as consultants to the Commission. The recommendations are made available in a publication, *A Guide to the Evaluation of Educational Experiences in the Armed Services*. The first edition was published in 1946 to assist educational institutions in evaluating the military educational experiences of veteran students of World War II (Turner 1968, xiii). The latest edition was published in 1988.

Military students also experience another problem in trying to obtain a degree. While in the service they often enroll in courses at civilian educational institutions. However, each year, thousands of military personnel are transferred from one city or country to another. For such people, satisfactory fulfillment of the degree requirements at any one institution is extremely difficult (Gould and Cross 1972, 18-19).

Largely through the initiative of concerned civilian educators, most of these hurdles have been overcome by the formation of the Servicemembers Opportunity Colleges (SOC) Program. Inaugurated in 1972, following extensive research, the SOC program today is built around a network of some 600 two- and four-year colleges across the country which have standardized the policies on admission, transfer and residency requirements, credits, curricula and fees.

The SOC program is coordinated nationally to make sure that entrance requirements are uniformly liberal, that classes are scheduled at the convenience of the service student, that academic assistance is available and that credits can be transferred readily from one institution to another (Department of the Army, 6).

Although the SOC program has been very successful in reducing the difficulty military personnel encounter in trying to obtain a degree, it is very limited at the present time. There are approximately 3300 colleges and universities in the United States.

The 600 institutions that participate in the SOC program represent only slightly more than eighteen percent of that total.

Corporate Education and Training Programs

In order to meet specific educational needs of their employees many corporations, organizations and government agencies have developed their own programs for education and training. Such programs are not new, but the number and size of these programs have grown tremendously in recent years. And some of them, such as the Control Data Institute and the Defense Intelligence School have achieved regional or national accreditation. Colleges and universities may grant credit for corporate education and training programs if they are accredited or if acceptance is recommended by the Program on Noncollegiate Sponsored Instruction (PONSI).

The PONSI program was begun in July 1974. It was created in response to a recommendation of the Carnegie Commission on Nontraditional Study that the American Council on Education's system of evaluating formal courses offered by the armed services be extended to civilian organizations. The criteria and procedures that ACE has used since 1945 in evaluating military courses were adapted for use by the Program on Noncollegiate Sponsored Instruction. The results of the evaluations are published in *The National Guide to Educational Credit for Training Programs*. The latest edition was published in 1989. The *Guide* also contains credit recommendations for courses offered by home-study schools which are accredited by the National Home Study Council that include a proctored, comprehensive examination (American Council on Education 1988, xiii).

The number of institutions that accept credit for noncollegiate sponsored instruction is growing but still limited. If an individual has credit earned through corporate training programs, he/she should check carefully to make sure it will be accepted at an institution of higher education.

External Degree Programs

An external degree program allows a student to bring together credit from a variety of sources, have it entered on a single transcript and apply it to a degree program. The institution that offers the external degree program may or may not offer courses of its own.

The Designation of Nontraditional Learning on Academic Transcripts

Credits can be awarded on the basis of examinations or an evaluation of the total learning experiences against the program's conception of a degree (Gould and Cross 1972, 95-125).

Examples of U.S. institutions that offer external degree programs are: Empire State College in New York, the University of the State of New York Regents College Degrees also in New York, Thomas A. Edison College in New Jersey and the Community College of the Air Force in Alabama.

External degree programs offer an excellent opportunity for military personnel and other adults who have amassed credits from a variety of sources to have them transcripted and applied to a degree program. Many external degree programs offer a flexibility that is not always present at more traditional institutions. As a result more nontraditional credit might be accepted and applied to a degree program.

Great care should be taken not to confuse an external degree offered by a legitimate institution with a diploma mill. Credit from external degree programs is generally accepted in transfer, subject to the rules and regulations of the receiving institution. Since diploma mills generally do not provide a learning opportunity or have concern about previously acquired learning, "credit" obtained in this fashion will not be accepted in transfer.

Continuing Education

Continuing education is the broad term used to define opportunities for extending education at the postsecondary level to young persons and adults. Continuing education may follow completion of or withdrawal from full-time school or college programs or it may occur where there has been no prior education at the postsecondary level. The service is often provided by special schools, centers, colleges, institutes or by separate administrative divisions such as University Extension (AACRAO 1980, 13). Off-campus programs, extension centers, evening and weekend programs and telecourses are all forms of continuing education.

Continuing education can incorporate all of the means of acquiring education described above. In addition it can also include learning for which no credit is awarded.

Much attention has been given to continuing education programs in recent years because of the increasing numbers of adults returning to school to continue their education. Today, nearly half of all students enrolled in credit programs at U.S. colleges and universities are over 25 and attending part time.

The Designation of Nontraditional Learning on Academic Transcripts

As indicated above, credit is not universally accepted in transfer for all forms of continuing education.

Non-Credit Programs for CEUs

While much of the credit earned through continuing education programs is likely to transfer to degree programs, none of the non-credit learning is likely to be counted unless it can be validated through an examination to establish credit or a portfolio assessment. Another way to assess the value gained through non-credit programs is through continuing education units (CEUs).

Formalized discussion of the concept that evolved into the CEU began on July 1, 1968. At that time, a national planning conference sponsored by the U.S. Office of Education, the National University Extension Association, the U.S. Civil Service Commission, and the American Association of Collegiate Registrars and Admissions Officers, and attended by representatives of thirty-four organizations, convened to identify common concerns of nondegree-credit continuing education programs.

A national task force that grew out of the 1968 conference defined the continuing education unit as: ten contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction, and qualified instruction (Long and Lord 1978, 2).

Several professional organizations that require certification that does not have to be credit-based have adopted the CEU as a standard for measuring non-credit learning. Records of non-credit instruction carrying CEUs can be used for job promotion and advancement. There is at this time no formula for converting CEUs to credits so they will apply to degree programs.

Diploma Mills

A growing problem in the United States and other countries is the increasing number of diploma mills attempting to pass themselves off as legitimate institutions of higher education. A diploma mill is basically an organization that sells degrees with little or no learning and no careful evaluation of prior learning. Diplomas awarded by diploma mills may be fraudulent reproductions of the diplomas of legitimate institutions or diplomas issued by the diploma mill itself.

The Designation of Nontraditional Learning on Academic Transcripts

Although diploma mills are a serious cause for concern, care must be exercised not to place the label of diploma mill on a legitimate institution (Stewart and Spille 1988, 9-10).

Diploma mills are a particular concern for military personnel because they hold out the hope of an easy degree for someone who has amassed a large amount of credit from many sources and is having difficulty in getting legitimate institutions to accept the credit. Military personnel are in fact the target of marketing efforts by highly questionable organizations that do not have accreditation by an agency recognized by the Council on Postsecondary Accreditation (COPA).

"Credit" from diploma mills will not be accepted in transfer by legitimate institutions. In addition, the use of diplomas obtained from diploma mills as a basis for advanced education or employment can lead to legal prosecution.

Record-Keeping Practices of Institutions Offering Nontraditional Learning Programs

The American Association of Collegiate Registrars and Admissions Officers (AACRAO) addressed the issue of record-keeping for nontraditional learning programs in the 1984 edition of its *Academic Record and Transcript Guide*.

The growing practice of awarding credit for non-traditional educational experiences and the increasing variation in modes of providing educational experiences within the college environment have resulted in a need for clearer identification of types of credit. Non-traditional education may refer to the actual learning endeavor itself, or to the manner in which the evaluation of such work is recorded. Since both quality and quantity of educational experiences may vary substantially from traditional methods (e.g., narrative vs. grades, specified vs. unspecified term, classroom vs. non-classroom experience), the recording institution bears the responsibility for ensuring that recipients of a transcript can make informed and reasonable evaluations of the educational experience.

Although continuing education records may be integrated with the total academic record, a separate transcript should be issued listing experiences for which Continuing Education Units (CEU) are awarded (AACRAO, 1984).

Experiential Learning

The Designation of Nontraditional Learning on Academic Transcripts

Experiential Learning

Experiential learning can be placed on a transcript in several ways: (1) A narrative description of the learning experience for which credit is being awarded, the number of credits awarded and the date the credits were awarded. An example of this type of transcript entry is as follows:

Spring Semester - 1987
6 credits granted for prior learning
Spring 1987 as follows:

Description of Experience:

1985-86 Tri-county youth program, Northampton, Mass. Counselor/ resident staff. Responsibilities included supervising recreational activities, intervening in crisis situations, developing daily living skills, and keeping individual records.

Areas in which credit is granted:

Adolescent Counseling
Adolescent Development

---

(2) A one-line entry, similar to that for a regular course, the number of credits awarded, the date the credits were awarded and a notation in the one-line entry or elsewhere that this is credit for experiential learning. An example of this type of transcript is as follows:

```
Spring 1988  Exp Learning Credit
             Lower Level

POSC000  Exp Learning in Cr Just    12 (credits earned)
```

---

3) An entry showing the institution's own courses for which equivalent credit is granted, the number of credits awarded, the date the credits were awarded and a notation that the credit is for experiential learning.

The Designation of Nontraditional Learning on Academic Transcripts

Credit by Examination

Credit by examination is usually recorded with an entry that notes credit by examination in general or the specific type of credit by examination (e.g., CLEP, DANTES, PEP, etc.) or both and the date the examination(s) was taken. On a single line then appears the test number, the test name, the test score and the number of credits awarded by the institution for the test. Institutions generally will award credit only for those examinations with scores equivalent to a grade of "C" or better. Usually only those tests for which credits are awarded are posted to the student's record. An example of a transcript entry is as follows:

Credit by Examination

DANTES (May 7, 1986)

SB425 College Algebra 40% (Percentile score) 3 (credits)

Institutions should be sure to post test scores on the permanent record. This might make it easier for another institution to accept the credit from the transcript. However, most institutions will require original test score reports, directly from testing agencies, before posting credit by examination.

Independent Study/Home Study/Correspondence Study/Distance Learning

Correspondence/Home Study courses are usually posted with an entry noting the type of credit. The date the credit was earned should appear above each course or group of courses completed at the same time. If the correspondence was accepted in transfer from another institution, the name of the institution should also appear. The remainder of the entry is usually similar to that for a regular course, showing the course number, course title, credits earned and grade. An example of a transcript entry follows:

Correspondence Study

January-June, 1987

ENGL023 Survey of English Literature I 03 B

Independent Study/Distance Learning are often identified as regular courses offered by the institution and appear with no special entry.

Military Education and Training Programs

A transcript entry for credit awarded on the basis of military education or training should include the following: an entry noting the type of credit (i.e. Military Credit), the branch of the military, the fact that the ACE Guide was used in evaluating the programs and, on a single line, the institution's equivalent course abbreviation, title and credit hours. An example of an entry for military education or training is as follows:

Military Credit - U.S. Army
(ACE Guide)

BOC 101	Elem Typg	2.00
ENG 223	BSNS Communica	3.00
BUS 210	Human Rel Orgz	3.00
ENG	Eng Elective	2.00

Credit for military education and training programs may be awarded based on entries on the DOD Form DD214. More recently the Army and the American Council on Education have developed the Army/ACE Registry Transcript System (AARTS), which combines all forms of credit earned in the military on one record and also provides the credit recommendations from the ACE *Guide*. This makes it much easier for the institution to evaluate the military education and training and facilitates the awarding and transcripting of credit.

AARTS transcripts are provided to Army personnel approximately six months before they leave the service. Additional copies can be sent to institutions at the individual's request. All Army personnel should be encouraged to use AARTS transcripts. Other services should consider participating in the AARTS program or creating similar programs.

The Designation of Nontraditional Learning on Academic Transcripts

External Degree Programs

Since learning included in external degree programs can take several forms (e.g., experiential learning, credit by exam, credit for military training, credit for non-sponsored instruction and regular classroom credit) credit will be transcripted as recommended elsewhere for each form.

Continuing Education

Since learning included in continuing education programs for credit can take the same forms as that for external degree programs, it too will be posted as recommended elsewhere for each form.

Continuing Education Units (CEUs)

Transcripts for non-credit programs for which CEUs are awarded should be issued separately from those for credit courses (AACRAO, 1984, p. 10). The transcript should bear the notation that it is a "Continuing Education Transcript". The entry for each program should contain the following elements: name and location of the sponsoring organization, course number (any structured and/or codified series of numbers which will uniquely identify the CEU program or activity), title of the program or activity, date and length of the program or activity, qualitative or quantitative evaluation of the individual's performance, number of CEUs awarded, a brief description of the program itself. An example of a transcript entry for a non-credit program record would be as follows:

The Professional Development
Institute, Washington, DC

July 1-3, 1988
SMBS 059 Fin Mgmt   1.5 (CEU) S (Satisfactory Participation)

A three-day institute on financial
management for small business

CEU's for non-credit programs and credits for degree programs are not interchangeable. CEU records and degree program records are maintained separately. While CEU's can provide a means of documenting certain educational activities, they cannot be used toward degree programs.

Practices of Institutions of Higher Education in Accepting and Recording Nontraditional Learning Experiences Transferred From Other Sources

Institutions usually require official copies of transcripts from other institutions and original copies of test scores if other than institutional tests. Original copies of test scores are usually required even if there is an entry on another institution's transcript showing acceptance and award of credit for the test by another institution. This is particularly true if the test score is not recorded on the other institution's transcript.

Generally, institutions will not accept any credit in transfer unless the student earned a grade of "C" or better where an "A," "B," "C," "D," "F" grading system is used. In instances where pass-fail grading is used, the credit may not be accepted in transfer if pass is defined as equivalent to "A," "B," "C," or "D" because the institution may be accepting the equivalent of a "D" grade.

Institutions often place a limit on the amount of non-traditional credit they will accept, overall or by specific type, for a degree program and they may restrict its use to particular areas of the degree program (e.g., general education requirements or electives).

Experiential learning credit awarded at one institution may not be accepted by another institution because that institution has a policy that does not permit its acceptance. If there is a policy permitting acceptance of experiential learning credit, it still may not be accepted unless the basis for the credit is clear and/or it is recorded using an equivalent course number at the institution(s) where the experience was evaluated and the new institution has an equivalent course. Acceptance of experiential learning credit is not universal, nor may it be applicable to all degree programs within an institution. If an institution does not offer credit for experiential learning, it may offer credit by examination using either CLEP, PEP or DANTES examinations or its own departmental examinations that will enable the individual to receive some credit. Military personnel should be certain to investigate these alternatives, if necessary.

Military and corporate training are also not universally accepted for degree programs by traditional colleges and universities. The work of the American Council on Education in evaluating programs and providing credit recommendations through the *Guide to the Evaluation of Educational Experiences in the Armed Forces*, the *National Guide to Educational Credit for Training Programs and the Guide to Educational Credit by Examination* are instrumental in the growing acceptance of these programs. Similarly, the advent of the Servicemembers Opportunity Colleges and the growing number of institutions in the SOC network is leading to the increased acceptance of military and corporate training for degree credit. Again, institutions may place a limit on the amount of this type of credit they will accept for a degree program and they may restrict its use to particular areas of the degree program (e.g., general education requirements or electives).

Correspondence study is also not universally accepted. It is more likely to be accepted if it was taken at an accredited institution, particularly one that is regionally accredited. However, here too, institutions may place a limit on the amount of credit they will accept for a degree program and they may restrict its use to particular areas of the degree program (e.g., general education requirements or electives).

Practices In Transcripting Nontraditional Learning That Create Problems for Military Personnel

There are practices involved in the transcripting of nontraditional learning that create problems for many military personnel. The author was aware of some of these practices prior to the inception of this project, but the research conducted as part of the project has brought to the surface additional practices that cause problems. In this section we identify at least some of these problems.

There is still a perceived difference between regional and national accreditation. Many regionally accredited institutions have transfer credit policies that allow them to accept credit in transfer only from other regionally accredited institutions. If the credit cannot be accepted, it cannot be transcripted.

Most institutions have a residence requirement, some requiring the student to take up to 50 percent of the coursework toward a degree at that institution. Students who have accumulated more credits prior to enrolling at that institution would lose all of the excess credits.

Most institutions place a limit on the overall amount of credit they will accept in transfer. This is particularly true at the graduate level where most institutions will accept a maximum of six or twelve credits in transfer.

The Designation of Nontraditional Learning on Academic Transcripts

Most four-year institutions will accept only 60 credits in transfer from a community college. If the student has taken more than 60 credits at a community college, the excess credits will be lost.

Many institutions will not accept credit from a community college toward a student's major. If the student has taken courses at the community college that are equivalent to courses in the major at a four-year institution, the credit for these courses may be lost.

Many four-year institutions have policies that prevent them from even considering the acceptance of vocational-technical credit. Vocational-technical credit is recommended by the ACE *Guide* for much military training. Here, too, if the credit cannot be accepted, it cannot be transcripted.

Many institutions, by policy, place a limit on the amount of credit for the various types of nontraditional learning, including military education and training, they will accept for a degree program and they may restrict the use of the credit they will accept to particular areas of the degree program (e.g., general education requirements or electives). Institutions that award credit for military training may not award credit for military occupational specialties (MOS).

The difficulty in understanding and interpreting information on the DD214 is a barrier to wider acceptance of military credit.

The lack of uniformity in the way credit from various sources is posted to the student's record makes it difficult for other institutions to interpret.

The fact that test scores are not uniformly recorded on students records for CLEP, AP and PEP examinations, makes it necessary for institutions to request original copies of test score reports when they may not otherwise be needed.

The type or source of credit is not always clearly identified on the student's record. This makes it difficult for institutions considering acceptance of the credit in transfer and necessitates their requesting original records for all sources of credit.

There is a difference between acceptability of credit for posting to the transcript and applicability of that credit to the degree program of an institution. Even though transfer credit is accepted and posted to a student's transcript, there is no guarantee that it will be applied toward that student's specific degree requirements.

The Designation of Nontraditional Learning on Academic Transcripts

Military personnel often experience great difficulty obtaining transcripts of all of their education experiences because of the many types of education programs in which they have participated and the many different institutions they have attended.

There are a growing number of diploma mills in the United States and in other countries that offer degrees for little or no learning. In our credential-oriented society, they hold out the hope of a degree with a very small or no investment of time on the part of the student. Credit from diploma mills will not be accepted and transcripted by legitimate institutions.

Recommended Actions To Correct Problems

Although not all of the problems can be resolved, either now or in the immediate future, we must begin to take action that will result in their long-term resolution. Among the steps that we can take are the following:

A major marketing effort should be undertaken to encourage additional institutions to join the SOC. The number of institutions participating in SOC is now in the hundreds. There are approximately 3,300 institutions of higher education in the United States. Under the SOC program, institutions must meet the SOC requirements for the acceptance of transfer credit; therefore, the servicemember will receive the maximum credit allowable.

ACE and AACRAO should make a continuing effort to encourage wider acceptance and use of the *Guide to the Evaluation of Educational Experiences in the Armed Forces* and the *National Guide to Educational Credit for Training Programs* by colleges and universities and policy changes where necessary to make acceptance of credit for military experiences possible. Many institutions still do not have policies that allow them to award credit for learning acquired through military experiences.

ACE and AACRAO should make comparable efforts to encourage wider acceptance and use of the *Guide to Educational Credit by Examination*. Relatively few service members are making use of the credit by examination option.

The Army/ACE Registry Transcript System (AARTS) is helping to take the mystery out of evaluating military training records. This should help lead to broader awarding of credit for training in the armed forces. Here too a major marketing effort is needed to encourage institutions to change their policies to permit the acceptance of credit for military experiences and encourage students with military training to provide the institution with a copy of their AARTS transcript. ACE, AACRAO, AASCU, AACJC, and other interested associations should provide encouragement and should assist institutions in using AARTS to facilitate the transfer of credit for soldiers.

Army education service officers and counselors should be fully informed as to the effectiveness of AARTS when used by service members in seeking entry to postsecondary education institutions and educational credit for their learning acquired in the military. AARTS information should be provided and adequately explained to all service members and recruiters.

The Department of Defense should be encouraged to work toward making the AARTS system available to Navy, Marine Corps and Coast Guard. Use of the AARTS transcript makes it easier for institutions to evaluate military credit from these branches of the service. With understanding and ease also comes acceptance.

ACE should obtain, and appropriately disseminate, information about credit acceptance and application from AARTS transcripts. This could heighten interest in the program by military servicemembers, military education service officers and colleges and universities.

The benefits provided to veterans under the new Montgomery G.I. Bill and such programs as the Army College Fund might help encourage institutions to grant more credit for training in the armed forces, particularly at a time of declining enrollment among traditional students.

The development and dissemination of a compendium of success stories where military personnel have had a large amount of credit awarded for learning from non-traditional education experiences, and have successfully completed a degree program could be a way to encourage other colleges and universities to award more credit.

Institutions may fear that accepting military and other non-traditional forms of credit will "water down" their degree and/or result in the loss of income to the institution if a large amount of credit is awarded. AACRAO, ACE and AASCU and individual institutions should conduct studies to examine these issues and determine if they are valid concerns and, if so, how they can be overcome. If the study reveals the concerns are not valid, this information should be shared with other institutions to encourage them to change their practices.

Institutions should make certain that their administrative and academic officials, and not just their registrars and academic advisors, have access to and understand procedures and guidelines used in the evaluation of nontraditional learning. Military personnel involved in recruiting and education should also be knowledgeable about the evaluation of nontraditional programs. If all parties involved in counseling military personnel can provide realistic information regarding the amount of credit the servicemember is likely to receive a great deal of misunderstanding can be eliminated.

Associations such as AACRAO and ACE should develop guidelines for posting the various types of nontraditional credit to student records that might make the records easier to interpret and thereby encourage broader acceptance of nontraditional credit.

AACRAO should consider developing guidelines that encourage institutions to transcript only that transfer credit that will actually be applied to a student's degree program. To post all transfer credit, when some of it will not be counted toward the degree, may mislead the student. Efforts also should be made to encourage academic advisors to explain the difference between acceptability and applicability of credit to students.

ACE, AACRAO, AASCU, COPA and other organizations should make concerted efforts to encourage colleges and universities to accept academic credit from both regionally and nationally accredited colleges and universities.

ACE, AACRAO, AASCU and other organizations should continue to encourage four-year institutions to examine their transfer credit policies and consider accepting vocational-technical credit, at least on a limited basis. Credit could be accepted on a course-by-course basis and applied toward electives and/or accepted toward other portions of a student's degree program when the receiving institution has an equivalent course that is applicable to the degree program.

AACRAO currently has a task force developing standards for the electronic transmission of transcripts. The task force is also exploring the possible establishment of a network over which transcripts can be exchanged electronically. AACRAO should be encouraged to complete the development and implementation of the standards and a network to facilitate the exchange of transcripts. This innovation will simplify and expedite the exchange of transcripts and, therefore, expedite the evaluation process and the transcripting of transfer credits by the receiving institution.

ACE and AACRAO should continue and expand their efforts to inform the public, and particularly military personnel, about the growing number of diploma mills in the U.S. and other countries. Military personnel who are having difficulty getting all of their credit accepted by legitimate institutions may be especially vulnerable to the attractiveness of diploma mills. Efforts should also be continued to encourage states to pass legislation that will make it difficult for diploma mills to operate.

Conclusion

We believe we are involved in resolving problems where there can be only winners. We urge the associations involved in this study, other appropriate associations, the Department of Defense and the colleges and universities throughout the United States to work together to implement the solutions proposed here to some of the problems facing military personnel and others who must pursue their education in a nontraditional fashion. We believe the results will be a better educated military, a better educated citizenry and a more responsive higher education system.

References

American Association of Collegiate Registrars and Admissions Officers. *Academic Record and Transcript Guide*. Washington, DC: AACRAO, 1984.

American Association of Collegiate Registrars and Admissions Officers. *Definitions of Terms for Admissions and Records*. Washington, DC: AACRAO, 1980.

American Council on Education. *The 1988 Guide to the Evaluation of Educational Experiences in the Armed Services.* Washington, DC: American Council on Education, 1988.

College Entrance Examination Board. *CLEP20*. New York: College Entrance Examination Board, 1987.

College Entrance Examination Board. *Report of the Commission on Tests I. Righting the Balance*. New York: College Entrance Examination Board, 1970.

Department of the Army. *Catalog of Army Education Centers: Second Edition*. Ft. Sheridan, Illinois: Department of the Army.

Gould, Samuel B. and Cross, K. Patricia. *Explorations in Non-Traditional Study*. London: Jossey-Bass Inc., Publishers, 1972.

Holmberg, Borje. *Status and Trends of Distance Education*. London: Kogan Page Limited, 1981.

Keeton, Morris T. and Associates. *Experimental Learning: Rationale, Characteristics, and Assessment*. San Francisco, California: Jossey-Bass, Inc., Publishers, 1976.

Kolb, David A. *Experimental Learning*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1984.

Long, Huey B. and Lord, Charles B. *The Continuing Education Unit: Concept, Issues and Use*. Athens, Georgia: The University of Georgia Center for Continuing Education/Athens, 1978.

MacKenzie, Christensen, Rigby. *Correspondence Instruction in the United States*. New York: McGraw-Hill Book Company, 1968.

Stewart, David W. and Henry A. Spille. *Diploma Mills: Degrees of Fraud*. New York: Macmillan Publishing Company, 1988.

References

Turner, Cornelius P. *A Guide to the Evaluation of Educational Experiences in the Armed Services*. Washington, DC: American Council on Education, 1968.

APPENDIX A

OVERALL METHODOLOGY AND FINDINGS SUMMARY

APPENDIX A

OVERALL METHODOLOGY AND FINDINGS SUMMARY

Overall Methodology

The research design of this project on articulation and transfer was developed by a group of researchers representing the four cooperating associations who were partners in the project effort. The overall goals of the project dealt with needed resources and information on issues, policies and practices of articulation and transfer as they affect military personnel. The research activities, then, were conceptualized to gather information and present it in three forms: trends, problems identified, and recommended solutions.

Successful accomplishment of these activities relied on the involvement of the audiences for the research: representatives of the military services, the postsecondary institutions, and the state administrators who are responsible for setting or implementing articulation policy.

A research group of the cooperating organizations worked together on a triangulated approach to collect information on policy and practice. Triangulation refers to the design of multiple and diverse methods of collecting information about the same phenomenon. The expectation is that the different methods will yield corroborative data providing reliability and validity checks for the research assumptions.

In the case of this study, the simple exploration of trends and practices was sought. However, there were enough references to problems of military personnel and nontraditional students in the literature to raise questions about the gaps between policy and practice at both the institutional and state or sector governance or coordinating level. Issues of congruence were explored through interviews. However, there was no effort to obtain empirical evidence of any discongruities between policy and practice. There was no attempt to evaluate any institution's practice nor any existing system of documentation of student learning. The hope was, that if there were indeed problems to be found, their description would emerge from the transcript study and the interviews with campus and state contacts.

The triangulated approach consisted of the following activities:

(1) A survey of articulation agreements in 11 states with large student populations and large military populations. Some of the states selected were also bellwether states, in terms of their attention to articulation. The states are: California, Florida, Georgia, Hawaii, Illinois, Maryland, North Carolina, South Carolina, Texas, Virginia, and Washington.

(2) Follow-up interviews with state contacts to gather information on state collection of data on transfers, state policies regarding military personnel and nontraditional education, state identification of problems, appeals processes, suggestions for smoothing the transfer process for military personnel.

(3) An empirical study of the process of transferring and applying credit for previously earned education credentials. Eleven hypothetical transcripts were developed representing different degree goals at the two- and four-year levels of higher education. The transcripts were notable because, while not official, they represented a composite of military and collegiate experiences

that would realistically be found in the documentation submitted by military personnel to a college or university. Institutional contacts were asked to apply the credit from all sources listed on the transcript to one of three categories and explain how their policies and practices affected these decisions.

(4) Telephone interviews with each responding institution. The interviews explored three themes: the institutional structure for decisionmaking; the institutional policy and practice; and the institutional perspective on difficulties. All of the questions were specifically directed to the experience of the military servicemember.

A strong response from participants in all of the research activities provides reliability for the research findings. There are some limitations of the study, however, that must be noted.

First, it was not possible to conduct the empirical transcript study for a random sample of all higher education institutions, given study resources. Although the final totals show considerable balance of institutions from all major sectors, there are fewer two-year institutions in some states than were sought as participants.

Second, the transcripts were developed for specific degree goals in a limited number of disciplines. Again, balance was sought in the representation among these disciplines of impacted or popular programs in higher education today, liberal arts programs, and technical programs. (The transcripts are found in Appendix E.)

We feel the results are sufficiently corroborated by telephone interviews and the triangulation of data collection supports some generalizable findings. However, the user of the results is reminded of the diversity of postsecondary education, and it is recommended that areas not covered by this research need additional inquiry.

Review of the Literature. Before the research activities began, a literature search was undertaken by members of the research group. A comprehensive search of the ERIC Clearinghouse on Higher Education database was augmented by a number of publications, policy statements, and guides developed by the cooperating associations. The research group met to discuss the issues represented in these sources. The goal of the discussions was to formulate a series of questions on policy and practice that would serve as the interview questions in the research activities.

The literature review provided a good indication of information gaps. It was clear from the readings, for example, that very little research on transfer problems of military personnel had been attempted. There were existing models of documentation of learning acquired through the military and models of articulation to facilitate transfer of credits while serving in the military. These had been developed to compensate for gaps in the traditional systems. Examples of these models--the Servicemembers Opportunity Colleges and the Army ACE Transcript Registry--are discussed in the papers on Nontraditional Learning and Transferability of Credits.

Identification of State Contacts for State Survey of Articulation Agreements. Working with all the associations representing the major postsecondary education sectors (degree-granting, accredited institutions, public, independent, proprietary) the research group collected lists of contacts to survey at the state level. Since organizations of systems and institutions for these different sectors vary within states, letters were mailed to all the contacts from each sector in each of the 11 states. The final group of survey contacts demonstrated the diversity. Twenty-two individuals from state planning commissions, governing boards, curriculum and academic affairs offices were among the group interviewed. Each member of the research group conducted interviews. The results of the interviews were collected and discussed by the research group before proceeding to the next stage of the research, the institutional transcript evaluation study.

Selection of Institutions for Transcript and Interview Study Activities. A number of resources were used to compile a list of postsecondary institutions in the 11 states that were the focus of the study. These institutions were to be invited to participate in the transcript evaluation portion of the project. Names of institutions that are considered educational providers to the military services in each of these states were solicited from the representatives of these services. Then, members of the research group reviewed listings in higher education directories to identify other complementary institutions in the same states that were not on the provider list.

A balance of type and control of institution was sought in the group of postsecondary institutions from which we hoped to elicit participation in the study. The research group reviewed information about the recommended institutions, especially about the breadth of degree programs offered, since certain degree programs had been selected by the group for the development of student transcripts.

Every effort was made to add more institutions to the group in each state because it was anticipated that some would not choose to participate and some would not have matching degree programs, regardless of indications in the directories utilized to select them.

A letter describing the project and the transcript study was mailed to chief executives at a total of 134 institutions. Enclosed also were preprinted postcards asking the institution head to designate a person at the institution who was most knowledgeable about transcript analysis to participate.

Positive responses were received from 85 institutions by telephone or on the preprinted postcards. Nineteen institutions did not return the transcript evaluations, despite follow-up telephone calls. Two institutions sent in transcripts but were not included in the tabulations. One institution mailed its submission in after the data were tabulated. The other institution returned the results but did not identify itself on the transcript sheets or in a transmittal letter.

The goal of the selection process was a total of 6-8 institutions in each focus state. An average of 6 institutions per state did participate. However, as the following breakdown shows, Virginia was the state with the lowest response rate. Also, overall, the two-year institutions did not respond at the same rate as the four-year institutions, especially in California and North Carolina.

State	Number Invited	Number Participating	Four-Year Participants	Two-Year Participants
California	8	5	4	1
Florida	11	9	6	3
Georgia	7	6	3	3
Hawaii	5	3	2	1
Illinois	9	6	3	3
Maryland	9	5	2	3
North Carolina	8	7	6	1
South Carolina	5	5	3	2
Texas	10	10	6	4
Virginia	6	3	-	3
Washington	7	7	5	2
TOTAL	85	66	40	26

Transcript Development and Pilot Test. Seven program areas at the associate degree level and four program areas at the baccalaureate-and-above level were selected to be the focus of the transcript evaluation study. These areas and degree goals were selected after considering the following trends: the most popular areas of study by military personnel for off-duty education, the areas of learning acquired through the military that face the most difficulties in transfer to collegiate settings, the most popular and impacted programs in higher education.

Members of the research group were assigned the task of reviewing examples of documentation of military personnel (for example, AARTS transcripts) and collegiate transcripts, as well as course catalogs and developing hypothetical student records according to the degree goals and disciplines chosen.

Hypothetical student histories were developed with accompanying course, test and vocational information. A description of the contents of the transcripts is found in Appendix C. The transcripts themselves are presented in Appendix E.

A pilot test with three local admissions and student academic advisors from neighboring institutions was conducted. Each institution received the set of transcripts matching their institutional level and a set of guidelines. After completing the assignment, the participants were debriefed on the task and asked for their recommendations on improvement of the transcripts, the evaluation forms, and the issues involved in the study. Their comments are integrated in the report on interviews of campus contacts. (Appendix D.)

The findings of the pilot test:

(1) The evaluation form was found to be relatively easy to use. However, the pilot test participants suggested that the directions encouraged multiple responses for each course. Therefore, the final guidelines and directions on the evaluation form made clear that the evaluator was to use his or her best judgment and apply the credit toward the most likely category of the curriculum requirements: general education, electives, or the major field requirements. More comment space was provided, as per their request.

(2) The transcripts themselves needed a good deal of work. Since most institutions require official transcripts and we could not provide this, our pilot test participants requested complete information on MOSs, more information about the sending institution's calendar system and GPA information.

Also, mismatching credit information was identified that had been taken from guides on evaluating military credit. Clarification was requested concerning the reported scores of standardized tests. Our pilot participants told us that recommended scores sometimes conflicted with credit recommendations.

Once the forms and transcripts were refined, they were sent out to the 85 institutional contacts identified in the postcard replies.

Telephone Survey of Campus Contacts. In late September and early October 1989, all designated contacts at the responding institutions were called by project staff. One set of questions had been developed by the research group for all campus contacts. These interview questions are provided in Appendix E.

The process and institutional practices guiding their decisions to "award" credit were the focus of the interviews. Sixty-six institutions were contacted for the interviews. Four did not participate. Of these four, one could not be reached. One refused to participate; two participants were no longer available to comment; and one institution was closed due to hurricane damage. The results of the telephone interviews are presented in Appendix D.

Data Analysis

Sixty-six institutions submitted responses that were then entered into a series of databases established to permit an analysis of decisions on awarding credit. The transcript evaluation form asked the participants to make three decisions about award of credit for each course listed on the transcript. These decisions were coded and then entered into a course evaluation database. An institutional characteristic database and a course description database were also developed. Together the three databases facilitated queries by type of institution and by control, as well as comparisons by course category.

The occurrences of awarding credit in each category were tabulated and a ratio formulated to allow comparison by type of course and by type of institution. (For a complete description of the transcript analysis see Appendix C.) The results of this analysis were combined with results of the interviews and state policy review. The overall goal of the analysis process was to locate trends, problems and solutions. An extensive set of recommendations was formulated and discussed with the project advisory committee and representatives of the Department of Defense. Additional recommendations were formulated from the research results and integrated into the final set. All the recommendations appear in the first report, Trends and Recommendations.

Summary of Findings

State Trends. The study activities located little in the way of state trends or actions that are directed to the military personnel who expect to transfer credits. Most articulation agreements and transfer guidelines refer to the traditional transfer student. These guidelines specify equivalent courses for transfer credit toward the major or electives and recommend acceptance of the associate degree in fulfillment of the lower division requirements. Although learning acquired through the military is recognized in at least three of the states, most of our contacts described the states as conservative when it comes to a regard for credit earned in nontraditional ways.

State contacts did not indicate that any changes were forthcoming, such as a new effort to track the participation of military personnel in higher education. At least three state contacts recognized institutions in their states participating in SOC. Although an increase in the number of adult and nontraditional students was acknowledged, revision of policies regarding nontraditional learning was not at the top of most agendas.

Institutional Policies and Practices. Most institutions in our study are prepared to review the educational histories of military personnel wishing to transfer credits. Institutional evaluators, typically in the registrars or admissions office, have access to the resources needed for the evaluation. They are often restricted in the number of credits that can be applied to collegiate credit from learning acquired through the military and by residency requirements for total number of credits applicable to graduation requirements. In a few cases, colleagues on nearby military bases become important resources for evaluating courses.

Institutional practices are consistent with state and system agreements reviewed for this study. They typically deal with acceptance and application of credit for liberal arts courses that have been acquired traditionally. When questions of equivalence occur, for vocational/technical courses or for courses in the major field, faculty or department heads become the arbiters. The diversity of institutional policies makes it difficult for the military personnel to count on or predict transfer decisions.

Institutions are generally positive toward the servicemember and expressed concern for his/her experience in attempting to transfer. Institutional contacts report the major stumbling blocks for military personnel to be the expectations for transferability and the documentation of learning that is sent for evaluation. As long as military personnel submit documentation that is complete, institutions will be responsive in their evaluations. However, military personnel will find that most credits earned through military-sponsored learning will gain only minimal acceptance, and will primarily be applied to general education or elective requirements.

Problems identified and solutions offered by the campus contacts are described in Appendix D.

APPENDIX B

SURVEY OF ARTICULATION AGREEMENTS

APPENDIX B

SURVEY OF ARTICULATION AGREEMENTS

Report on Survey of State Agreements

The first research activity of the project on articulation and transfer involved reviewing the articulation agreements from the 11 focus states to determine state trends in articulation services and transfer activity.

An introductory letter was mailed to representatives of three sectors (public, independent, and proprietary) in each of the states. Twenty-two individuals responded to the letter. The members of the research group divided up the list of contacts by state and sector and telephoned each. The questions directed to these individuals, generally the academic officer of a system or the director of a sector organization, were organized into three areas: student information and concerns; institutional practices and policies; state policies and recommendations.

Student Information and Concerns. Extensive data sets on the number of transfers by state and their academic progress are not widely found. In our study, however, the states of Washington, North Carolina, Maryland, California, Illinois, Texas and Florida reported maintaining such data, but it varied in comprehensiveness and it did not focus on the military servicemember. The state contacts could not provide a comfortable estimate of the extent of transfer activity in their state by military personnel. This the institutions participating in our interviews were able to estimate, but not with confidence.

With their knowledge of articulation agreements operating in the state, our contacts were able to describe the students who would be expected to experience the most difficulties in the transfer process:

- Minority students whose transfer rates appear lower than white students.
- Students trying to transfer into impacted programs in which applications far exceed available space.
- Students not covered by state transfer policies, particularly students who have not earned an associate degree, who have majored in vocational/technical areas, or who are trying to transfer nontraditional credit.

State contacts view military servicemembers as fitting into the second and third categories. If military servicemembers follow the transfer policies, they should expect no problems. However, the educational records of these individuals contain occupational specialties that do not match collegiate courses, many military-sponsored courses that are vocational in nature, and they are typically seeking entry into impacted programs such as management and computer science. The institutional perspective on course objectives and learning outcomes cannot always be satisfied with course descriptions and validations. Since many credits will not be applied to electives or the major, military personnel may actually be building up a credit deficit.

When students wish to appeal transfer of credit decisions, there are a few avenues available to them in these states. The telephone interviews and articulation literature identified a few states with appeals processes: Georgia, Illinois, Maryland, and Texas. In most cases the processes are cumbersome and seldom used because they take up so much time for the student and the administrators of various institutions. State contacts said that in most cases the appeals were left to the institutions to work out among themselves.

Interviews with campus contacts supported the view that appeals are handled within the institution for the most part. The individuals who evaluate transcripts also are part of the appeals process. If a transfer coordinator is so identified at the institution, he or she shepherds the process. The registrar or director of admissions is usually involved in the final decision, and in some cases the chief academic officer has responsibility.

Articulation or transfer coordinators (or counselors) are one positive state and system trend that this study identified. Many states have designated a specific position within the institution for the coordination of transfer decisions and appeals. Articulation coordinators were reported by state contacts in California, Florida, Illinois, Maryland, South Carolina, North Carolina, Texas and Washington. Illinois and North Carolina placed particular emphasis on the importance of this position in our interviews. Articulation coordinators in these states are on call to deal with appeals and are the individuals on campus most knowledgeable about transfer problems.

Computerized articulation systems to help students and the evaluators of credit are being developed in Florida, Maryland, and California. Such systems provide details on requirements and course equivalences. Students are able to obtain feedback about their progress and evaluators have standard reports on students. This is one trend that should be beneficial to military servicemembers as they develop an educational plan. More detail about computerizing the transfer of credits is provided in the report on Nontraditional Learning.

Policies for the Servicemember. Among the eleven states participating in the telephone interviews and survey of articulation agreements, three have explicit recommendations regarding military education in their literature on articulation and transfer. California describes credit that should be given for military service. North Carolina recommends the use of the ACE-published Guide and the principles of SOC. In Illinois, a memorandum of understanding links community colleges with the military installations so that requirements for the associate degree can be fulfilled through credit acquired in military education and training.

Nearly all states in our focus group have references in their literature to the treatment of credit earned in nontraditional programs or awarded in nontraditional ways. These recommendations cover credit by exam, and education or training acquired in the workplace or in the military. The states with references in their literature are: California, Georgia, Illinois, Maryland, North Carolina, Texas and Washington.

State contacts reported however, that articulation policies are becoming more specific. This is likely to exclude any educational experiences that do not conform to the courses or series of courses specified in articulation policies. Community college contacts interviewed pointed to the fact that universities look askance at nontraditional learning in noncollegiate settings.

However, to balance this pessimistic view, some exceptions were found in the articulation literature from the states, such as, a strong statement about lifelong learning and the need for flexibility for adult learners in the North Carolina information; policies about credit by examination in California, Georgia, Illinois, Maryland, Washington, Texas and North Carolina. Credit earned in education programs delivered in the workplace and in the military were referenced in the materials sent by California, Maryland, Illinois, North Carolina, and Texas.

Articulation agreements are primarily directed to traditional transfer students. Fulfillment of the general education requirements may be accomplished with the associate degree or the equivalent credit. Course-by-course equivalence is more likely the norm for articulation in the major field. Whether course-by-course or degree-to-degree, agreements work as guidelines for institutions in most cases, and participation is voluntary. For example, in North Carolina, a task force on articulation has produced a book with a page on each public four-year institution, describing transfer information and requirements. Each institutions is slightly different. In Florida, Texas and Washington, the articulation authority is formal and legally based. Common-course numbering, a specific transfer curriculum, and admissions requirements are components of articulation in one or more of these states. In California, Georgia, Illinois, Maryland, South Carolina and Virginia, system policies have been established for the state's public colleges and universities.

Institutional Practices. Two institutional practices that could affect the transfer process for military personnel are setting residency requirements and the utilization of faculty advice in decisions about the application of credit. The interviews with state contacts did not shed any additional light on these two areas. The interviews with campus contacts provided the best sense of how these differ from one institution to another.

In general, states expect institutions to exercise their autonomy in the application of credit for the major. This is not necessarily considered a divergence from state guidelines. The state contacts did report, however, that there was a tension between the expectations of the military for transferability and the view of quality of education held by the institutions. Indications are that the military-sponsored courses and vocational experiences are not thought to be as rigorous and are not widely accepted because of this perception, as well as because institutions require more information and evidence of student learning in the documentation of these nontraditional experiences.

Many state contacts were not familiar with the Servicemembers Opportunity Colleges or were aware that participation in SOC was occurring at a few institutions within the state. When asked if institutions belonging to SOC helped mitigate problems of military personnel, those interviewed could offer no statistical evidence, however, state contacts in Georgia, North Carolina, and in Illinois offered opinions that the institutions participating in SOC benefited, as did the servicemembers.

State Policies and Identified Trends. Some important trends and areas needing attention were identified by the state contacts in the interviews.

- Articulation compacts do not address the major field degree requirements, admission into a specific program major at the upper division level, or admission requirements at the university.
- The diversity of general education courses designed by universities are outpacing the attention to general education at community colleges. The concern is that learning outcomes from general education studies will not be the same, as content and design vary.
- As a matter of public policy, states should consider the adequacy of spaces in all disciplines and institutional procedures which guarantee opportunity to participate in these programs.
- Faculty should be involved in setting transfer policies.
- There should be more current information exchanged between professional associations and transfer coordinators or specialists on changing needs in the professions and accreditation standards.
- More attention should be given to the needs of nontraditional students, especially ways to assess and transfer information about learning outcomes.

APPENDIX C

ANALYSIS OF TRANSCRIPT EVALUATION STUDY

APPENDIX C

ANALYSIS OF TRANSCRIPT EVALUATION STUDY

Methodology

In order to explore the extent to which the education and training of military service personnel articulate with college degree programs, prototype transcripts were sent to a sample of 85 public and private colleges in 11 states. The transcripts, presented in Appendix E, were hypothetically constructed and thus were not bona fide documents for actual people. In each case, however, the transcripts outlined a mix of educational experiences, course completions and test scores that enlisted military personnel are likely to bring with them to colleges and universities. Among the items listed on the transcripts were the following:

- Military training, education, and occupational specialties recognized by the American Council on Education as acceptable educational experiences for college degree credit;
- Career-related or vocational courses completed at postsecondary institutions;
- Liberal arts and sciences courses completed at postsecondary institutions; and
- Scores on competency tests (such as the DANTES examinations) that are designed to document student mastery of selected courses, thus allowing colleges to award students credit for prior learning without requiring them to take unneeded courses.

For each course, learning experience or test score listed, the college was asked to indicate if the student would be awarded credit that would count toward (1) general education degree requirements, (2) elective requirements, or (3) major (subject area) course requirements. For example, the transcript for "Peter M. Rabbit," which was sent to the participating four-year colleges, listed the following:

- Four military training and educational experiences: (a) the student's military occupational specialty; (b) his or her basic military training; (c) an automatic data processing intern program offered by the Management Engineering Training Agency; and (d) a course on machine/computer operation offered by the Institute of Administration at Fort Benjamin Harrison in Indiana.
- Three courses completed at Northern Virginia Community College: one liberal arts and sciences course (English Composition) and two vocational courses (Engineering Technical Mathematics and Assembly Language Programming).

Each college was asked to indicate if these classes could be applied to the student's degree goal, in this case a B.S. in computer science, either as general education credit, elective credit, or computer science credit. (An associate degree goal was specified on transcripts sent to community colleges.)

Of the 85 colleges contacted for the transcript study, 66 responded with usable questionnaires: 22 public community colleges; 21 public four-year colleges; 19 private four-year colleges and 4 proprietary degree-granting institutions. Data analysis and findings are outlined below, comparing two and four-year colleges in terms of the degree to which they grant credit for the items listed on the transcripts.

Data Analysis

An analysis of the data was completed to determine the coefficients that provide indicators of the extent to which the participating colleges award credit for the courses and tests listed on the transcripts. The coefficients, outlined in Table One, range from "0" (indicating that none of the colleges accepted the courses or learning experiences in question) to "1" (indicating that all of the colleges accepted the courses in question). For example, the coefficient for the degree to which two-year colleges awarded general education credit for military education and training is .11 and was calculated as follows:

- Let A = number of two-year colleges participating in the transcript analysis study
- Let X = total number of military education and training experiences listed on the transcripts analyzed by the participating two-year colleges
- Let $B_{1,2,3...x}$ = the number of two-year colleges indicating that they would grant general education credit for military course 1, military course 2 and so on through military course X.
- Coefficient = $\Sigma B_{1,2,3...x}/A \times X$

Thus if all 22 participating colleges indicated that they would grant general education credit for each of the 25 military courses or learning experiences listed on the transcripts sent to those colleges, $\Sigma B_{1,2,3...x}$ would equal (A x X) and the coefficient would be one. On the other hand, if--for each military course or experience--none of the 22 participating two-year colleges indicated that they would grant credit for these courses, the coefficient would be zero. In the case at hand, the participating two-year colleges rarely awarded general education credit for the military learning experiences listed on the prototype transcripts, and $\Sigma B_{1,2,3...x}$ totaled to only 63. Since 22 two-year colleges were evaluating 25 military learning experiences, (A x X) equaled 550 (22 x 25). The resulting ratio (63/550) yielded a coefficient of .11.

The intent here is not to inject gratuitous mathematics. Rather, the coefficients provide a means of determining which courses or military learning experiences were more likely to articulate with college programs and which types of colleges were more likely to award credit for these courses and learning experiences.

Findings

In interpreting the data on Table One, it should be remembered that the colleges participating in the study do not constitute a representative sample of the colleges and universities in the United States. Nor do the courses listed on the prototype transcripts constitute a representative sample of the courses and learning experiences undertaken by military personnel. Thus, only tentative hypotheses, outlined below, can be drawn.

Differences by Type of College. There appear to be no significant differences between public two-year colleges, public four-year colleges, and private four-year colleges in terms of the degree to which they award credit for the courses and learning experiences listed on the trancripts. To be sure, a glance at the data reveals some variations. For example, four-year colleges seem a bit more likely than two-year colleges to award general education credits for competency test scores. As another example, private four-year colleges seem more likely than public four-year colleges to award major subject area credit for competency tests scores. But the differences in most cases remain small and it would be hard to argue that they represent statistically significant variances.

As a further test of differences between the types of colleges participating in the study, coefficients were also calculated for the degree to which colleges indicated that they would accept the courses and learning experiences on a conditional basis (usually requiring students to demonstrate mastery before awarding credit). These coefficients are outlined in Table Two and indicate that very few colleges applied conditions to the award of credit. The learning experiences and courses listed on the transcripts were either accepted or rejected; very few colleges said "maybe."

A provisional look at differences for those institutions indicating they benefited from a good relationship with a nearby military base yielded some interesting differences. These two-year institutions had higher coefficients for military courses than when they were combined with all other institutions. These "proximate" institutions seemed more likely to apply credit for learning acquired through the military to general education and to the major than all other types of institutions.

Differences by Type of Learning Experience. Regardless of institutional type, colleges were more likely to award credit for liberal arts and sciences courses taken at other colleges than for any other type of learning experience. Training offered by the military was the least likely type of learning experience to be accepted for credit, while college courses in career related areas fared slightly better. This is wholly consistent with current articulation policies, which focus primarily on transfer of general education courses. In evaluating the transcripts, the participating colleges stuck to the familiar, looking more favorably on traditional college courses than on vocational courses or noncollegiate learning experiences.

How Were Credits Awarded? Relatively few credits were applied toward the student's major; when credit was granted, it was most often applied toward general education or elective requirements, not toward major subject area requirements. Vocational classes appear to be an exception; colleges were more likely to award major subject area credit for these classes than for other learning experiences.

Table One
Course Credit Acceptance Coefficients

	Public 2-YR Colleges	Public 4-YR Colleges	Private 4-YR Colleges
		Military Training	
Applied to general education	.11	.15	.16
Applied to electives	.24	.27	.36
Applied to subject major requirements	.16	.11	.12
		College Vocational Courses	
Applied to general education	.15	.09	.14
Applied to electives	.44	.36	.32
Applied to subject major requirements	.32	.46	.42
		College Arts and Sciences Courses	
Applied to general education	.54	.64	.62
Applied to electives	.32	.43	.38
Applied to subject major requirements	.15	.12	.14
		Competency Test Scores	
Applied to general education	.19	.32	.34
Applied to electives	.18	.20	.28
Applied to subject major requirements	.13	.16	.29

Table Two
Coefficients for Conditional Acceptance of Courses and Military Education and Training

	Public 2-YR Colleges	Public 4-YR Colleges	Private 4-YR Colleges
		Military Training	
Applied to general education	.02	<.01	.03
Applied to electives	.10	.02	.01
Applied to subject major requirements	.15	.00	.10
		College Vocational Courses	
Applied to general education	.00	.00	.01
Applied to electives	.02	.01	.02
Applied to subject major requirements	.06	.01	.09
		College Arts and Sciences Courses	
Applied to general education	<.01	<.01	<.01
Applied to electives	.00	<.01	<.01
Applied to subject major requirements	.00	<.01	.02
		Competency Test Scores	
Applied to general education	.05	.02	.08
Applied to electives	.05	.00	.00
Applied to subject major requirements	.04	.02	.09

APPENDIX D

INTERVIEWS WITH CAMPUS CONTACTS

APPENDIX D

INTERVIEWS WITH CAMPUS CONTACTS

Introduction

The results of the interviews with campus contacts can be organized into three broad areas: the location and responsibility for credit award decisions, existing policies and resources affecting decisionmaking, the difficulties and solutions of first hand experience.

The Location and Responsibility for Decisionmaking

Evaluation of Transcripts. The responses of our campus contacts indicate that when a servicemember sends in a transcript for evaluation it will most likely be handled by a member of the admissions or student affairs staff, in many cases the registrar or Director of Admissions may be responsible for individual evaluations. Fifty-four of the participating campus contacts said they made the decisions for our empirical study and would be doing so under "normal" circumstances.

Forty-three institutions have a designated transfer officer on campus. Nine said they did not. When asked if this position was needed, 7 contacts said no, the rest supported the existence of this role. A few institutions which did not have large transfer populations said that more than one person could share the role. Two or three institutions reported the existence of military evaluators in their offices to address military issues. These individuals were not necessarily from the military, but were trained and knowledgeable about the awarding of credit for learning acquired in the military.

Policy Development and Implementation. In most institutions, decisions about transfer credit are made in the offices of admissions or registration. Other offices charged with the implementation of an existing transfer or articulation policy represent the administrative diversity of higher education institutions: enrollment services, academic evaluations, and student affairs. The policy itself, according to the campuses, is established by academic councils, the faculty senate, or an academic policy committee with the academic dean or the Vice President for Academic Affairs participating and/or supervising the implementation.

Institutional Policies and Practices Regarding Award of Credit

Resources. The 1988 Guide to the Evaluation of Educational Experiences in the Armed Services (and earlier editions) by the American Council on Education is the single most important resource used by all but eight responding colleges. Four of these colleges said they did not accept military training as college credit; two indicated that they never heard of the ACE Guide; and two reported that they did not evaluate the transcripts at all, but sent them to personnel at local military bases.

Many colleges rely on the Guide exclusively. Other resources consulted in conjunction with this publication were:

- Faculty and department heads (30 colleges and universities)
- Personnel at local military bases
- Catalogs and syllabi.

Thirteen institutions, varied as to type and control, reported that a relationship with nearby military bases aided their process of decisionmaking. Twenty institutions were specific about the need to check with faculty. Ten reported they did so when in doubt about any course. Five reported faculty were essential to decisionmaking about upper division credit. Five reported working with faculty in specific subject or technical areas, such as nursing and chemistry.

A surprising number of institutions reported some consistent communications with their counterparts within the state and with the military population they were serving. Thirteen institutions answered that they had no contact with these resources. Sixteen specified no contact with the military. Only three mentioned state authorities as resources. Twenty-three institutions and twenty-four respectively met with the military and with their counterparts in postsecondary education.

Articulation Agreements and Transfer Practices. Fifty-nine institutions reported a variety of articulation agreements with specific institutions, either local or within their state system.

- Twenty have articulation agreements with two-year colleges
- Fourteen have agreements with four-year institutions
- Thirteen reported agreements, but did not specify the level of institution
- Four reported course-equivalency agreements
- Four reported no agreements
- Two institutions have agreements with trade and technical schools
- Two are about to enter agreements or have them with another sector, such as business.

Institutions in two states reported significant state activities affecting the practice of awarding credit. In Illinois, a voluntary agreement through the State Board of Higher Education provides for the acceptance of an associate degree from the community colleges in the state in lieu of the first two years of the institution's requirements. Requirements in general education are also included in this agreement. Some institutions also reported specific agreements with neighboring states: Missouri, Indiana, Kentucky as well as Florida and California.

In Florida, the statewide articulation agreement is mandated by the legislature with, among other features, a common course numbering system and extensive use of new technology to inform students and decisionmakers about transferability of credits.

Hawaii respondents reported their state system is expecting a new policy to go into effect in November. In Maryland, a task force is currently reviewing articulation issues in light of recent restructuring of the state's system of public colleges and universities.

More information about state agreements can be found in the report on articulation of degree programs and in Appendix B.

Articulation agreements at these institutions have the greatest effect on the transferability of credit for the traditional transfer student. Supporting the evidence collected in state surveys and in literature reviews, the campus contacts described agreements as being quite specific. Courses must match or be equivalent, credit must be validated in the upper division courses, and the typical agreement permits entry into the four-year institutions with junior status, provided all requirements are met and the transfer has the associate of arts degree credential or the equivalent.

Extent of Transfer Activity. With a substantial number of agreements represented in the participating campuses, an effort was undertaken to quantify the number of transfer students enrolling in these institutions and the percent of these who are military. It proved difficult to obtain both numbers from each institution. Nevertheless, questions pertaining to the significance of the transfer activity in these institutions and the extent to which the policies affect servicemembers were asked.

Number of Transfers. The following distribution describes the extent of the transfer activity in the responding institutions.

Estimated Number of Transfers at Participating Institutions

Distribution Category	**Number of Institutions Reporting**
None. Students Transfer out, not in.	1
No estimate available.	10
Very small number are transfers.	3
Less than 25% are transfers.	7
About one-third to one-quarter are transfers.	12
Almost 50% are transfers.	15
Almost all students are transfers.	2

Proportion of Military Servicemembers among Transfers. Institutions were not always able to distinguish between veterans and active military in this estimate.

Estimated Proportion of Military Servicemembers in the Transfer Population
(Participating Institutions Only)

Distribution Category	**Number of Institutions Reporting**
No Idea	3
Less than 1%	2
1%	16
5% and above	6
10-15%	8
Around 25%	6
Over 50%	1
Substantial Number	1
7000 Evaluations per year	1
500 Evaluations per year, 50-100 are military	1

Policies Regarding Credit for Military Education and Training. There were a variety of institutional policies reported by the participating institutions that would affect a military servicemember. By far the greatest response concerned the credit limit to transferring credits from military occupational specialties or military-sponsored education.

Sixteen institutions reported such distinctions as:

- Accepts credit from liberal arts courses only
- Military training limited to 10 and DD214 a limit of 6 for a total of 16 credits
- Accepts a total of 2 credit toward the physical education requirement from Basic Training
- Accepts a total of 12 hours
- Accepts a total of 30 semester hours, including upper division credit and can award graduate credit (Florida).

In addition:

- Eight institutions explained they have general guidelines which are applied to the military-acquired credit, in line with the evaluation of nontraditional students and the assessment of prior learning.

- Six institutions reported they used the *Guide* published by ACE exclusively and followed it as long as they could find a matching entry.

- Two institutions described themselves as SOC members and adhered to the SOC guidelines.

- Two had no specific policy, but said there was a general limit on transferring in credits.

- No credit acquired through the military is accepted at two participating institutions.

- Two of the participants did not give an answer to the question.

A follow-up question to obtain details of the policies did not yield much additional clarification. Twenty-five institutions did not answer and eleven specified again their use of the *Guide to the Evaluation of Educational Experiences*. Even when a reference was found in this publication, final award of transfer credit depends on additional documentation at some of the institutions. Three institutions used the SOC guidelines in their credit transfer practice. One reported it refused to accept learning acquired through military-sponsored education or training and two stated their institutions give no credit for life experience.

The institutions participating in the transcript evaluation study and interviews strongly responded that no exceptions or mitigating circumstances played any part in their decisions about awarding credit. Fifty-eight said "no" when asked this question. Only one reported a special program for former students who had done poorly academically, and wished to start over. These students are allowed to enter without a grade history from their previous educational record.

Residency Requirements and Transfer. A specified number of hours of credit that must be earned at the receiving institution is the policy often cited as the villain in the transfer efforts of military personnel. The participants in our transcript evaluation study did not seem to think their requirements were hindrances. However, the sheer diversity of policies represented in just these 60 some institutions indicate how this issue could become the focus of concern to any transfer applicant.

- 24-30 semester hours was the most frequently reported residency requirement for the baccalaureate institutions (28 reporting). This varied from institution to institution as to the requirement for consecutive or nonconsecutive attendance.
- 12 units were specified for the associate degree by 10 institutions.

Eight institutions did report residency requirements which, in their opinion, would hamper transfer activity.

- The last 45 hours or last year in residence
- Last two years in residence
- 30 quarter hours in residence
- Last 32 hours in residence.

On the positive side, four respondents described adherence to SOC principles for students in agreements (15 credit hours in residence; 25% or 20% rule). They said this allowance would make it easy for servicemembers to transfer into their institutions.

The Difficulties and the Solutions

The participants in the transcript evaluation task expressed an overall sense of support for military personnel who might be transferring to their institutions. When asked to pinpoint the problems and further, to suggest solutions to smooth the process, the respondents provided some excellent insights.

Military transcripts are difficult to interpret. Jumbled paperwork, unexplained acronyms, and incomplete course descriptions that tell little about the learning of the students make it difficult to match courses in the transcript with entries in the ACE-published Guide. Documents from the military, specifically, DD214s and 295s are difficult to work with and often come to the institution with "wads of stuff stapled on." (25 institutions)

Colleges do not accept or only rarely accept military training as college credit. (7 institutions)

The Guide to the Evaluation of Educational Experiences in the Armed Services is often incomplete. Courses listed in the transcript are not found. Dates do not always match dates on transcripts. (6 institutions)

Relationship with nearby bases is helpful. With a base nearby, the problems are minimized because the institution has a long history of dealing with military service personnel as students. Sometimes transcripts are sent directly to the base where they are evaluated by the military itself. (6 institutions)

These problems are not generally experienced by institutions. Military personnel rarely, if ever, apply. Thus the college or university has little experience with these students and is unfamiliar with the transcripts, guides, and other materials dealing with the documentation of these students' learning. (5 institutions)

Majors students wish to pursue are not offered at the institution. (5 institutions)

Nontraditional learning is not part of the regular transcript evaluation process. Transcripts with this type of learning are sent elsewhere for evaluation, sometimes to the faculty in relevant departments, sometimes to a division of continuing education. (2 institutions)

Faculty and department heads balk at applying nontraditional learning. Even when learning acquired through the military has been positively evaluated by the transfer coordinator or evaluator, a requirement to gain faculty approval may result in refusal to grant credit. (2 institutions)

Students must have completed an associate degree before transferring in. (1 institution)

Minimum match of nontraditional learning with curriculum. Small colleges offering a relatively small number of degree choices find that much of the student's nontraditional learning will not have a counterpart in the regular curriculum. (1 institution)

Students start too late in the process. When students do not allow enough time for the evaluation process, it is difficult to evaluate their transcripts in a timely manner and their entry may be delayed. (1 institution)

Suggestions for Smoothing the Process. The respondents made several practical suggestions for smoothing the process. It is important to remember that they are implementing policy and their suggestions relate to the realities of implementation. Some may have very good suggestions for changing the policy, however, this was not the focus of the inquiry activity with the campus contacts.

- Clean up the forms provided by the military to servicemembers. This may require some changes in the system of documenting educational experiences. Completion certificates and complete information about test scores were emphasized as important in making transfer credit decisions. One finding from the interviews was that the AARTS document is highly regarded as an example of a useful method of transmitting information about a student's experiences.

- Correct errors and inconsistencies in the ACE-published Guide. Produce the ACE guide on floppy disk for the PC user. Conduct workshops on its use.

- Expand the practice of military partners in the evaluation of learning acquired through military-sponsored education and training, providing military with comprehensive information about the likelihood or transferability of specific education and training. Expectations engendered by the military promotion system, by the recruiter, or by the education service officer conflict with what is transferable.

APPENDIX E

TRANSCRIPTS AND INTERVIEW INSTRUMENTS

Interview Questions
Surveys of State Contacts

I. STUDENTS

A. Do you have a profile of transfer students entering (or seeking to enter) the postsecondary education institutions in your state? Is this information available for only certain sectors? What are the general findings about achievement, adjustment, satisfaction of students and institutions?

B. Have you identified any groups of students who have particular problems transferring or gaining acceptance and award of credit? Who are they? What is being done, if anything, to alleviate these problems?

C. Would you say that the number of requests for transfer into your state institutions by military service personnel is increasing, decreasing, remaining stable? Please comment about the factors affecting this change or stability.

D. Do military service personnel have particular problems obtaining credit and transferring within the systems in your state? To what do you attribute these problems?

II. INSTITUTIONS

A. Which institutions in your state have articulation or transfer officers? How do they function? To whom do they report? Do they meet formally? Is there a training component to this job?

B. Do you have an appeals for decisions regarding transfer credit? What role does the institutional representative play? the student? How long does the process take to reach a final decision? How is this decision communicated? Do you maintain data on the use of this process, if so, are there any particular students who have used it most frequently?

C. Do any of the institutions in your state have memoranda of understanding with military installations concerning award and acceptance of credit earned through traditional and nontraditional education experience? Are copies available?

D. Can you tell us anything about the efforts of institutions in the area of transfer credit from undergraduate to graduate schools or across graduate schools? Is there any activity at this level? What are the problems? Do graduate schools in your state make distinctions between acceptance of undergraduate credit earned on a nontraditional rather than traditional basis?

E. Do SOC institutions play a role in mitigating problems of military servicemembers in your state? To what extent do you rely on this group of institutions or this system to mitigate problems of transfer for this group of students?

F. Do you have one person who is assigned to handle problems involving military personnel?

III. STATE POLICIES AND RECOMMENDATIONS

A. What provisions, if any, do state or system articulation policies make for military personnel who want college credit awarded for noncollegiate sponsored learning experiences in the military?

B. Do you observe any differences between official policy and actual practice in the matter of acceptance of nontraditional credit on transcripts?

C. What factors are operating in your state affecting policies regarding acceptance of traditional or nontraditional credit?

CC. Do institutional residency requirements affect military students? How?

D. What in your opinion would be the most positive action that could be taken by state authorities, the military, and institutions to facilitate the enrollment and transfer of credits for students who are members of the military services?

Campus Contact Interviews

Transcript Evaluation Study

1. Name of Contact:

   Institution:

   Date of Interview:

2. Were you the person who made the decisions and submitted the evaluation forms?

   Is there a designated transfer or articulation officer on your campus? If so, in what office/division/department does this person work?

   In your opinion, is this position/person needed?

3. What were the difficulties experienced in the task?

   For example, course titles were not adequate, information on credit was not adequate, information on military courses was not adequate, evaluation forms were confusing, our institution does not have these programs or has a number of different programs and we did not know which one to reference.

4. What were the resources you used to assist you in your decisionmaking? For example, did you use ACE Guides to military evaluations; did you consult with Department Chairs, faculty, faculty committees?

5. Does your institution currently have an articulation or transfer agreement with others in your state?

   Does this agreement affect your decision to award credit? To apply credit?

   Do you have communications or meetings with state authorities concerned with articulation and transfer? with military education service officers in the military services?

Peter M. Rabbit
100-00-1116
Degree Program: B.S. in Computer Science

---

① **Military Occupation Specialties (MOS)**

Computer Systems Operator
Skill Level: 30
ACE Guide ID Number: MOS-74D-003
Assume acceptable SQT results

Description: Summary-Operates electronic computer console and auxiliary equipment. **Skill Level 10**-Performs computer console supporting activities; mounts magnetic disk and tape; operates line printers; keeps a magnetic tape library. **Skill Level 20**-Able to perform the duties required for Skill Level 10; operates a computer system consisting of a central processing unit, magnetic tape units and/or disk storage units in a nonmultiprogramming or non multiprocessing environment. **Skill Level 30**-Able to perform the duties required for Skill Level 20; operates a computer system in multiprogramming and multiprocessing environment; operates a computer system which has remote-inquiry stations and a program interrupt capability.

……

ACE Recommended Credit: In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 5 semester hours in computer system operations, 3 in introduction to data processing, 3 in file organization and processing, 2 in computer operating systems, and 1 in introduction to systems analysis and design. In the upper-division baccalaureate category, 2 semester hours in computer operations systems and 1 in introduction to systems analysis and design (9/81).

……

Military Course Completions

② **Basic Military Training**
Training Center
Ft. Dix, NJ
Dates: 02/01/80-04/13/80
ACE Guide ID Number: AR-2201-0197

Objectives: To provide training for all enlisted personnel who have had no previous military service.

Instruction: Course teaches discipline, spirit and basic combat skills and includes drills, ceremonies, alcohol and drug abuse, rape prevention, personal health, first aid, personal affairs, basic rifle marksmanship, NBC warfare defense, introduction to individual tactical techniques, U.S. weapons training, marches, bivouacs, tactical training, physical fitness training,

reinforcement, and equal opportunity. Those students completing the longer version of this course have included their basic military training through One Station Unit Training (OSUT).

……

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 1 semester hour in outdoor skills practicum, 1 in marksmanship, 1 in personal health, and 1 in personal physical conditioning (9/79).

……

3.

Automatic Data Processing Intern Program
Management Engineering Training Agency
Rock Island, IL
Dates: 06/01/81-09/12/81
ACE Guide ID Number: AR-1402-0039

Objectives: Course is designed for new programers to provide them with in-depth knowledge and practice in several programming languages, including COBOL, S360 Assembler, and Job Control Language, and in debugging techniques and systems analysis and design concepts.

Instruction: This course covers the fundamentals of computer programming; S360 Assembler Language; JCL for COBOL programmers; COBOL programming, special features, and debugging; JCL and utilities workshop; ADP systems analysis and design; COBOL access methods; and DARCOM orientation. The intern program provides a continuing environment of computing exercises and interaction with the instructors and peers.

……

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 3 semester hours in COBOL (11/76); in the upper-division baccalaureate category, 4 semester hours in S360 Assembler Language, 3 in systems analysis (11/76).

……

4

Computer/Machine Operator
Institute of Administration
Ft. Benjamin Harrison, IN
Dates: 03/16/85-04/21/85
ACE Guide ID Number: AR-1402-0055

Objectives: To provide a knowledge of the principles of punched card data processing, to introduce automatic data processing, and to prepare the student for disk operating systems and the operation of a computer system in a multiprogramming environment.

Peter M. Rabbit
100-00-1116
Degree Program: B.S. in Computer Science

Instruction: Lectures and demonstrations emphasizing hands-on experience with a computer and peripheral equipment.

……

ACE Recommended Credit: In the vocational certificate category, 5 semester hours in computer operator training (2/78).

……

Transfer Credit

Northern Virginia Community College
Annandale, Virginia

Legend: Northern Virginia Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools. It operates on a quarter calendar. Northern Virginia Community College grades on a four-point scale:

A = Excellent, 4 grade points per credit
B = Good, 3 grade points per credit
C = Average, 2 grade points per credit
D = Poor, 1 grade point per credit
F = Failure, 0 grade points

Course numbering system:

001-009: Developmental courses-not applicable toward a degree, certificate or diploma.
010-099: Freshman level courses for the diploma and certificate programs. The credits earned in these courses are not applicable toward an Associate Degree.
100-299: Courses applicable toward an Associate Degree. They may also be used in certificate and diploma courses.

Fall 1987

⑤	DAPR	138	Computer Systems Arch	03	B	09
⑥	ENGL	111	English Composition	03	C	06
⑦	MATH	121	Engin Tech Math I	05	C	15

Peter M. Rabbit
100-00-1116
Degree Program: B.S. in Computer Science

Catonsville Community College
Catonsville, Maryland

Legend: Catonsville Community College is accredited by the Middle States Association of Colleges and Secondary Schools. It operates on a semester calendar. Catonsville Community College grades on a four-point scale:

A = Excellent Work, 4 quality points
B = Good Work, 3 quality points
C = Satisfactory Work, 2 quality points
D = Poor Work But Passing, 1 quality point

Course numbering system:
001-099: Remedial courses
100-199: Course has no prerequisite or only one prerequisite
200-299: Course has two or more prerequisites

Spring 1988

③ CIS 141 Assembly Language Prog 04 B 08

John R. Jones
100-00-1112
Degree Program: B. S. in Criminal Justice

Military Occupation Specialties (MOS)

0 **Military Police**
Skill Level: 40
ACE Guide ID Number: MOS-95B-004
Assume acceptable SQT results

Description: Summary-Supervises or provides law enforcement activities, preserves military control, provides security, controls traffic, quells disturbances, protects property and personnel, handles prisoners of war, refugees, or evacuees, and investigates incidents. Skill level 10-Enforces traffic regulations and law and order; exercises military control and discipline and guards prisoners of war; responsible for traffic accident investigation; provides physical security for designated individuals, installations, facilities, and equipment; maintains traffic control and enforces traffic regulations, and safety; participates in civil disturbances and riot control operations; responsible for law enforcement investigations; performs foot and motorized patrol and applies crime prevention measures; prepares military policy reports, including sworn statements, and processes evidence. Skill level 20-Able to perform the duties required for Skill Level 10; leads military police patrol, small squad, and small detachment; supervises compound or work project; coordinates MP activities with civil police organizations; directs MP activities to quell disturbances and cope with disasters; supervises traffic safety activity and riot and crowd control; prepares reports, forms, and records on MP operations and activities. Skill Level 30-Able to perform the duties required for Skill Level 20; leads military police squad, medium-sized section, detachment, or platoon; assists in planning, organizing, directing, supervising, training, coordinating, and reporting activities of subordinated; organizes work schedules, assigns duties, and instructs personnel in techniques and procedures; evaluates personnel performance. Skill Level 40-Able to perform the duties required for Skill Level 30; leads large military police detachment, section, or platoon; collects offensive and defensive intelligence information and trains personnel in police operations and intelligence activities; assists in coordinating and implementing military police operations, training programs, and communication activities; assists in production and administration of staff journals, files, records, and reports.

John R. Jones
100-00-1112
Degree Program: B. S. in Criminal Justice

……

ACE Recommended Credit: In the lower division Baccalaureate/associate degree category, 3 semester hours in patrol operations, 3 in police supervision, 3 in a law enforcement elective, and 3 in office records management. In the upper-division baccalaureate category, 3 semester hours in principles of management (11/86).

……

Military Course Completions

② **Basic Military Training**
Training Center
Ft. Gordon, GA
Dates: 02/01/80-04/13/80
ACE Guide ID Number: AR-2201-0197

Objectives: To provide training for all enlisted personnel who have had no previous military service.

Instruction: Course teaches discipline, spirit and basic combat skills and includes drills, ceremonies, alcohol and drug abuse, rape prevention, personal health, first aid, personal affairs, basic rifle marksmanship, NBC warfare defense, introduction to individual tactical techniques, U.S. weapons training, marches, bivouacs, tactical training, physical fitness training, reinforcement, and equal opportunity. Those students completing the longer version of this course have included their basic military training through One Station Unit Training (OSUT).

……

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 1 semester hour in outdoor skills practicum, 1 in marksmanship, 1 in personal health, and 1 in personal physical conditioning (9/79).

……

③ **Basic Military Police**
Military Police School
Ft. McClellan, AL
Dates: 06/01/80-07/24/80
ACE Guide ID Number: AR-1728-0023

Objectives: To train the soldier to become disciplined, highly motivated, and capable of performing the duties of an entry-level military policeman to include: law enforcement and nuclear physical security skills.

John R. Jones
100-00-1112
Degree Program: B. S. in Criminal Justice

Instruction: Internal defense and internal development; unarmed defense; driver training; weapons; first aid; military law; vice control; MP communications; civil disturbances; police intelligence; traffic control; prisoners of war; physical security; apprehension and search; criminal investigations; public relations; observation, description and identification.

……

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal justice (11/73); in the upper-division baccalaureate category, 3 semester hours in criminal justice (11/73).

……

④ **Criminal Investigation**
Military Police School
Ft. McClellan, AL
Dates: 7/30/80-9/26/80
ACE Guide ID Number: AR-1728-0010

Objectives: To qualify enlisted personnel and warrant officers for criminal investigation duty in field units of the Army Criminal Investigation Command.

Instruction: Operation and administration of criminal investigation units; methods and techniques of investigation; crime scene investigation; collection, evaluation and preservation of evidence; death investigation; investigation of crimes against people; investigation of crimes against property; capabilities and limitations of scientific analysis of evidence; investigative photography; fingerprinting and report writing and testifying in court; fraud and waste investigations and drugs.

……

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 12 semester hours in criminal justice (11/73); in the upper-division baccalaureate category, 9 semester hours in criminal justice (11/73).

……

John R. Jones
100-00-1112
Degree Program: B. S. in Criminal Justice

⑤ **Polygraph Examiner Training**
Military Police School
Ft. McClellan, AL
Dates: 01/01/81-04/12/81
ACE Guide ID Number: AR-1728-0008

Objectives: To qualify military and federal civilian investigative/intelligence personnel as polygraph examiners.

Instruction: Polygraph theory and maintenance management; mental, and physical evaluation of examinee; polygraph instrumentation and examination; post-test procedures, practical exercises in zone comparison, peak of tension, and general question techniques.

……

ACE Recommended Credit: In the upper-division baccalaureate category, 12 semester hours in criminal justice (11/73); in the graduate degree category, 6 semester hours in criminal justice or forensic science elective (5/77).

……

Transfer Credit

Northern Virginia Community College
Annandale, Virginia

Legend: Northern Virginia Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools. It operates on a quarter calendar. Northern Virginia Community College grades on a four-point scale:

A = Excellent, 4 grade points per credit
B = Good, 3 grade points per credit
C = Average, 2 grade points per credit
D = Poor, 1 grade point per credit
F = Failure, 0 grade points

Course numbering system:

001-009: Developmental courses-not applicable toward a degree, certificate or diploma.
010-099: Freshman level courses for the diploma and certificate programs. The credits earned in these courses are not applicable toward an Associate Degree.
100-299: Courses applicable toward an Associate Degree. They may also be used in certificate and diploma courses.

John R. Jones
100-00-1112
Degree Program: B. S. in Criminal Justice

Fall 1984

⑥	ADJU	100	Introductn to Law Enf	03	B	09
⑦	PSYC	100	Prin of Applied Psych	03	A	12

Northern Arizona University
Flagstaff, Arizona

Legend: Northern Arizona University is accredited by the North Central Association of Colleges and Schools. It operates on a semester calendar. Northern Arizona University grades on a four-point scale: A = highest, 4 points
B = above average, 3 points
C = average, 2 points
D = lowest passing, 1 point
F = failure, 0 points

Course numbering system:

100-299: Lower division courses primarily for freshmen and sophomores
300-499: Upper division courses primarily for juniors and seniors
500-599: Graduate courses open to graduate students and qualified seniors
600-699: Graduate courses open to students admitted to graduate study
700-799: Advanced graduate courses usually of a professional nature

---

Fall 1984

⑧	ENG	101	English Composition	03	B	12
⑨	MAT	110	College Algebra	03	B	12
⑩	BIO	104	Plant Biology	04	C	08
⑪	SOC	150	In[illegible]o to Sociology	03	A	12
⑫	ANT	101	St[illegible]ing Cultures	03	A	12

Spring 198[illegible]

⑬	ENG	102	English Composition	03	A	12
⑭	CHM	130	Fundamental Chemistry I	04	C	08
⑮	PHI	101	Intro to Philosophy	03	D	09
⑯	PSY	150	Intro to Psychology	03	A	12
⑰	TH	101	Intro to the Theatre	03	B	09

John R. Jones
100-00-1112
Degree Program: B. S. in Criminal Justice

Fall 1985

⑱	HUM	201	Approaches to Humanities	03	B	09
⑲	ENG	214	Intro to American Lit	03	A	12
⑳	JLS	200	Mass Media and Society	03	B	09
㉑	HIS	291	U.S. History to 1865	03	B	09
㉒	SC	206	Nonverbal Comunication	03	A	12

Spring 1986

㉓	HIS	292	U.S. History Since 1865	03	B	09
㉔	CJ	200	Survey of Crimnl Justice	03	A	12
㉕	CJ	300	Juvenile Justice Systems	03	A	12
㉖	PA	224	Governmnt Adminstrtn	03	C	06
㉗	SOC	215	Race & Ethnic Minorities	03	B	09

Summer 1986

㉘	CIS	120	Intro to Comptr Info Sys	03	A	12
㉙	PSY	201	Intro to Research & Stat	04	B	12

John Q. Averagestudent
200-01-0000
Degree Program: B.S. in Management

---

① **Military Occupation Specialties (MOS)**

Club Manager
Skill Level: 50
ACE Guide ID Number: MOS-00J-002
Assume acceptable SQT results

Description: Summary-Supervises and directs activities of officers or noncommissioned officer/enlisted clubs and associated facilities. Skill Level 30-Performs general supervisory duties, including control over funds, personnel, and property; plans, organizes, directs, and controls activities and functions; recommends and enforces adopted club house rules; responsible for planning social functions, including entertainment and recreation; inspects facilities for compliance with sanitation, safety, and security regulations; determines need for property maintenance and repairs; prepares publicity and promotional materials; responsible for employee productivity and recommends promotion, transfer, termination, disciplinary action, and awards; plans and organizes food and beverage operations, including establishing menus, recipes, and prices for various food and beverages; established and monitors procedures for receipt, storage, issue, preparation, serving, sanitation, and preservation of food and beverage products; responsible for recommending and monitoring the type and scope of club concessionary operations; prepares or reviews purchase orders and requisitions and maintains responsibility for stock control and inventory; plans, prepares, and analyzes all financial management data, including daily receipts, club operating reports, operating budgets, and capital expenditure budgets; establishes procedures for billing members for dues and charges, collection of accounts receivable, and collection of delinquent accounts. Skill level 40-Able to perform the duties required for Skill Level 30; supervises operations of medium-size offices or noncommissioned officers/enlisted club. Skill Level 50- Able to perform the duties required for Skill Level 40; supervises operations of large officers or non-commissioned officers/enlisted club; coordinates club operations with other installation organizations for matters that affect operations or programs; reports progress and resolution of problems in achieving goals and objectives such as profitability, membership drives and customer service.

....

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 3 semester hours in food purchasing and inventory control, 3 in food sanitation and safety, 3 in food preparation, 3 in food service equipment and maintenance, 3 in hotel/motel management, 3 in restaurant management, 3 in -

office accounting, and 2 in business mathematics. In the upper division baccalaureate category, 3 semester hours in office management, 3 in personnel management, and 3 in marketing (1/82).

……

Military Course Completions

② **Basic Military Training**
Training Center
Ft. Gordon, GA
Dates: 02/01/80-04/13/80
ACE Guide ID Number: AR-2201-0197

Objectives: To provide training for all enlisted personnel who have had no previous military service.

Instruction: Course teaches discipline, spirit and basic combat skills and includes drills, ceremonies, alcohol and drug abuse, rape prevention, personal health, first aid, personal affairs, basic rifle marksmanship, NBC warfare defense, introduction to individual tactical techniques, U.S. weapons training, marches, bivouacs, tactical training, physical fitness training, reinforcement, and equal opportunity. Those students completing the longer version of this course have included their basic military training through One Station Unit Training (OSUT).

……

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 1 semester hour in outdoor skills practicum, 1 in marksmanship, 1 in personal health, and 1 in personal physical conditioning (9/79).

……

⑤ **Business Systems Analysis**
Army Computer Systems Command
Ft. Belvoir, VA
Dates: 9/12/85-09/25/85
ACE Guide ID Number: AR-1402-0048

Objectives: To provide students with an understanding of systems analysis, design, and implementation for organizational problem solving.

Instruction: The course comprises two modules: Systems Analysis Training for Programmers (also called Systems Analysis for Computer Programmers) and Design/Documentation Workshop. Course covers principles and techniques required in the analysis and design of information processing systems. Topics include defining

---

John Q. Averagestudent
200-01-0000
Degree Program: B.S. in Management

---

objectives, interviewing and gathering information, documentation, analyzing available information, selecting and designing a solution, types of controls, quantitative techniques and structured design techniques including the top down approach, HIPO, and Program Design Language. Guidelines for distinguishing between good design and bad design are included.

....

ACE Recommended Credit: Version 1: In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing (systems analysis) (11/82).

....

DANTES Subject Standardized Tests (DSST)

06/11/86
④ **SA408 Survey of Amer Lit I 3 s.h.**
Score: 68 PR (percentile)
....
ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.
....

06/11/86
⑤ **SA409 Survey of Amer Lit II 3 s.h.**
Score: 62 PR (Percentile)
....
ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.
....

10/07/86
⑥ **SB453 Principles of Economics I 3 s.h.**
Score: 65 PR (Percentile)
....
ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.
....

10/07/86
⑦ **SB454 Principles of Economics II 3 s.h.**
Score: 58 PR (Percentile)
....
ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.
....

John Q. Averagestudent
200-01-0000
Degree Program: B.S. in Management

10/07/86
⑧ SA525 Principles of Accounting I 3 s.h.
Score: 60 PR (Percentile)

....

ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.

....

Transfer Credit

Miami University
Oxford, Ohio

Legend: Miami University is accredited by the North Central Association of Colleges and Schools as a degree-granting institution at the baccalaureate, master's, and doctoral levels. It operates on a semester calendar. Miami grades on a four point scale:
A = excellent, 4.0 points for each credit hour
B = good, 3.0 points for each credit hour
C = satisfactory, 2.0 points for each credit hour
D = poor, 1.0 points for each credit hour
F = Failure, no points

Course numbering system:
100-199: Introductory courses, usually with no prerequisites
200-299: Sophomore-level courses
300-399: Junior-level courses
400-499: Senior-level courses
500-850: Graduate-level courses

Fall 1986

⑨ MTH	151	Calculus	05	C	10
⑩ UR	121	Western Civilization	03	B	09
⑪ UR	191	General Botany	04	A	16

Spring 1987

⑫ COM	135	Essentls of Public Spk	03	A	12
⑬ DSC	205	Stat & Quan Methods	05	B	15
⑭ UR	111	Poison & Medicnl Plnts	02	B	06
⑮ UR	122	Western Civilization	03	B	09

John Q. Averagestudent
200-01-0000
Degree Program: B.S. in Management

Summer 1988

⑯	UR	141	American Political Sys	03	A	12
⑰	MGT	301	Principles of Management	03	A	12

Fall 1988

⑱	ACC	311	Accounting Systems	03	A	12
⑲	ECO	301	Money and Banking	03	B	09
⑳	FIN	301	Intro to Busns Finance	03	B	09
㉑	MGT	302	Prod & Opertns Mgmt	03	A	12
㉒	MKT	301	Principles of Marketing	03	B	09

Name of Student: Percy B. Smith
315-02-0590

Intended Major: German, B.A.

Prior Learning Experiences

Military Occupational Specialties

① Interrogator
Skill Level 30
ACE Guide ID Number: MOS-96C-002
Assume Acceptable SQT Results
Description: Summary - Able to perform the duties required for Skill Level 20; provides technical guidance to lower-skill-level personnel; performs more difficult interrogations and translations, including scientific information; determines requirements for summaries, extracts, or complete translations of documents; performs as a team chief for interrogations and translator/interpretation functions; monitors interrogations and translations for accuracy, adequacy, and completeness; organizes and conducts on-the-job training; assists in preparation and presentation of information to superiors.

……

ACE Recommended Credit: In the vocational certificate category, 3 semester hours in typing, 3 in record keeping, 3 in report writing, and 2 in filing. In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in typing, 3 in report writing, 3 in oral communication, and 3 in personnel supervision, and additional credit in area studies on the basis of institutional evaluation. NOTE: Add credit for the specific language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

……

Military Course Completions

② Basic Military Training
Fort Benning, Georgia
Dates: 1/7/80-3/4/80
ACE Guide ID Number: AR-2201-0197

……

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 1 semester hour in outdoor skills practicum, 1 in marksmanship, 1 in personal health, and 1 in personal physical conditioning (9/79).

……

③ Electronic Warfare (EW)/Signal Intelligence (SIGINT) Noncommunications Interceptor Analyst Basic Noncommissioned Officer (NCO)
Intelligence School
Fort Devens
Dates: 5/10/85-8/10/85
ACE Guide ID Number: AR-1715-0726

……

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 1 semester hour in office management procedures and 2 in introduction to radar systems (5/87).

……

④ German Basic
Defense Language Institute
Dates: 1/4/81-8/17/81
ACE Guide ID Number: DD-0602-0030

......

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 10 semester hours in first-year German and 6 in second-year German (3/81).

......

DANTES Subject Standardized Tests (DSST)

⑤ 6/15/84
SA583 Beginning Spanish 3 s.h.
Score: PR (Percentile) 58

......

ACE Recommended Passing Score: PR (Percentile) 20
ACE Recommended Credit: 3 s.h.

......

Transfer Credit

University of North Carolina at Charlotte

Legend: University of of North Carolina at Charlotte is accredited by the Southern Association of Colleges and Schools as a degree-granting institution at the baccalaureate, master's and post-master's levels. It operates on a semester calendar. UNCC grades on a four point scale:

A = Excellent, 4.0 points for each credit hour
B = Good, 3.0 points for each credit hour
C = Fair, 2.0 points for each credit hour
D = Passing, 1.0 point for each credit hour
F = Failing, no points

Course Numbering System:

1000-2999: lower-division undergraduate
3000-3999: upper-division undergraduate
4000-4999: upper-division undergraduate and graduate
5000-5999: graduate and advanced undergraduate
6000-7999: graduate only

......

Fall 1984

⑥ **Germ 3030 Studies in German Culture 04 A 16**

Mary Poppins
200-01-0001
Degree Program: A.S. in Management

Military Occupation Specialties (MOS)

0 **Club Manager**
Skill Level: 50
ACE Guide ID Number: MOS-OOJ-002
Assume acceptable SQT results

Description: Summary-Supervises and directs activities of officers or noncommissioned officer/enlisted clubs and associated facilities. Skill Level 30-Performs general supervisory duties, including control over funds, personnel, and property; plans, organizes, directs, and controls activities and functions; recommends and enforces adopted club house rules; responsible for planning social functions, including entertainment and recreation; inspects facilities for compliance with sanitation, safety, and security regulations; determines need for property maintenance and repairs; prepares publicity and promotional materials; responsible for employee productivity and recommends promotion, transfer, termination, disciplinary action, and awards; plans and organizes food and beverage operations, including establishing menus, recipes, and prices for various food and beverages; established and monitors procedures for receipt, storage, issue, preparation, serving, sanitation, and preservation of food and beverage products; responsible for recommending and monitoring the type and scope of club concessionary operations; prepares or reviews purchase orders and requisitions and maintains responsibility for stock control and inventory; plans, prepares, and analyzes all financial management data, including daily receipts, club operating reports, operating budgets, and capital expenditure budgets; establishes procedures for billing members for dues and charges, collection of accounts receivable, and collection of delinquent accounts. Skill level 40-Able to perform the duties required for Skill Level 30; supervises operations of medium-size offices or noncommissioned officers/enlisted club. Skill Level 50- Able to perform the duties required for Skill Level 40; supervises operations of large officers or non-commissioned officers/enlisted club; coordinates club operations with other installation organizations for matters that affect operations or programs; reports progress and resolution of problems in achieving goals and objectives such as profitability, membership drives and customer service.

Mary Poppins
200-01-0001
Degree Program: A.S. in Management

....

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 3 semester hours in food purchasing and inventory control, 3 in food sanitation and safety, 3 in food preparation, 3 in food service equipment and maintenance, 3 in hotel/motel management, 3 in restaurant management, 3 in office accounting, and 2 in business mathematics. In the upper division baccalaureate category, 3 semester hours in office management, 3 in personnel management, and 3 in marketing (1/82).

....

Military Course Completions

② **Basic Military Training**
Training Center
Ft. Gordon, GA
Dates: 02/01/80-04/13/80
ACE Guide ID Number: AR-2201-0197

Objectives: To provide training for all enlisted personnel who have had no previous military service.

Instruction: Course teaches discipline, spirit and basic combat skills and includes drills, ceremonies, alcohol and drug abuse, rape prevention, personal health, first aid, personal affairs, basic rifle marksmanship, NBC warfare defense, introduction to individual tactical techniques, U.S. weapons training, marches, bivouacs, tactical training, physical fitness training, reinforcement, and equal opportunity. Those students completing the longer version of this course have included their basic military training through One Station Unit Training (OSUT).

....

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 1 semester hour in outdoor skills practicum, 1 in marksmanship, 1 in personal health, and 1 in personal physical conditioning (9/79).

....

③ **Business Systems Analysis**
Army Computer Systems Command
Ft. Belvoir, VA
Dates: 9/12/85-09/25/85
ACE Guide ID Number: AR-1402-0048

Objectives: To provide students with an understanding of systems analysis, design, and implementation for organizational problem solving.

Mary Poppins
200-01-0001
Degree Program: A.S. in Management

Instruction: The course comprises two modules: Systems Analysis Training for Programmers (also called Systems Analysis for Computer Programmers) and Design/Documentation Workshop. Course covers principles and techniques required in the analysis and design of information processing systems. Topics include defining objectives, interviewing and gathering information, documentation, analyzing available information, selecting and designing a solution, types of controls, quantitative techniques and structured design techniques including the top down approach, HIPO, and Program Design Language. Guidelines for distinguishing between good design and bad design are included.

....

ACE Recommended Credit: Version 1: In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing (systems analysis) (11/82).

....

DANTES Subject Standardized Tests (DSST)

06/11/86
④ **SA408 Survey of Amer Lit I 3 s.h.**
Score: 68 PR (percentile)

....

ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.

....

06/11/86
⑤ **SA409 Survey of Amer Lit II 3 s.h.**
Score: 62 PR (Percentile)

....

ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.

....

10/07/86
⑥ **SB453 Principles of Economics I 3 s.h.**
Score: 65 PR (Percentile)

....

ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.

....

Mary Poppins
200-01-0001
Degree Program: A.S. in Management

10/07/86
(7) SB454 Principles of Economics ~~II~~ 3 s.h.
Score: 58 PR (Percentile)

....

ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.

....

10/07/86
(8) SA525 Principles of Accounting I 3 s.h.
Score: 60 PR (Percentile)

....

ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.

....

Ima L. Earning
200-01-0002
Degree Program: A.A.S. in Management

Military Occupation Specialties (MOS)

① **Club Manager**
Skill Level: 50
ACE Guide ID Number: MOS-00J-002
Assume acceptable SQT results

Description: Summary-Supervises and directs activities of officers or noncommissioned officer/enlisted clubs and associated facilities. **Skill Level 30**-Performs general supervisory duties, including control over funds, personnel, and property; plans, organizes, directs, and controls activities and functions; recommends and enforces adopted club house rules; responsible for planning social functions, including entertainment and recreation; inspects facilities for compliance with sanitation, safety, and security regulations; determines need for property maintenance and repairs; prepares publicity and promotional materials; responsible for employee productivity and recommends promotion, transfer, termination, disciplinary action, and awards; plans and organizes food and beverage operations, including establishing menus, recipes, and prices for various food and beverages; established and monitors procedures for receipt, storage, issue, preparation, serving, sanitation, and preservation of food and beverage products; responsible for recommending and monitoring the type and scope of club concessionary operations; prepares or reviews purchase orders and requisitions and maintains responsibility for stock control and inventory; plans, prepares, and analyzes all financial management data, including daily receipts, club operating reports, operating budgets, and capital expenditure budgets; establishes procedures for billing members for dues and charges, collection of accounts receivable, and collection of delinquent accounts. **Skill level 40**-Able to perform the duties required for Skill Level 30; supervises operations of medium-size offices or noncommissioned officers/enlisted club. **Skill Level 50**- Able to perform the duties required for Skill Level 40; supervises operations of large officers or non-commissioned officers/enlisted club; coordinates club operations with other installation organizations for matters that affect operations or programs; reports progress and resolution of problems in achieving goals and objectives such as profitability, membership drives and customer service.

Ima L. Earning
200-01-0002
Degree Program: A.A.S. in Management

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 3 semester hours in food purchasing and inventory control, 3 in food sanitation and safety, 3 in food preparation, 3 in food service equipment and maintenance, 3 in hotel/motel management, 3 in restaurant management, 3 in - office accounting, and 2 in business mathematics. In the upper division baccalaureate category, 3 semester hours in office management, 3 in personnel management, and 3 in marketing (1/82).

Military Course Completions

② **Basic Military Training**
Training Center
Ft. Gordon, GA
Dates: 02/01/80-04/13/80
ACE Guide ID Number: AR-2201-0197

Objectives: To provide training for all enlisted personnel who have had no previous military service.

Instruction: Course teaches discipline, spirit and basic combat skills and includes drills, ceremonies, alcohol and drug abuse, rape prevention, personal health, first aid, personal affairs, basic rifle marksmanship, NBC warfare defense, introduction to individual tactical techniques, U.S. weapons training, marches, bivouacs, tactical training, physical fitness training, reinforcement, and equal opportunity. Those students completing the longer version of this course have included their basic military training through One Station Unit Training (OSUT).

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 1 semester hour in outdoor skills practicum, 1 in marksmanship, 1 in personal health, and 1 in personal physical conditioning (9/79).

③ **Business Systems Analysis**
Army Computer Systems Command
Ft. Belvoir, VA
Dates: 9/12/85-09/25/85
ACE Guide ID Number: AR-1402-0048

Objectives: To provide students with an understanding of systems analysis, design, and implementation for organizational problem solving.

Ima L. Earning
200-01-0002
Degree Program: A.A.S. in Management

Instruction: The course comprises two modules: Systems Analysis Training for Programmers (also called Systems Analysis for Computer Programmers) and Design/Documentation Workshop. Course covers principles and techniques required in the analysis and design of information processing systems. Topics include defining objectives, interviewing and gathering information, documentation, analyzing available information, selecting and designing a solution, types of controls, quantitative techniques and structured design techniques including the top down approach, HIPO, and Program Design Language. Guidelines for distinguishing between good design and bad design are included.

ACE Recommended Credit: Version 1: In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing (systems analysis) (11/82).

DANTES Subject Standardized Tests (DSST)

④ 06/11/86
SA408 Survey of Amer Lit I 3 s.h.
Score: 68 PR (percentile)

ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.

⑤ 06/11/86
SA409 Survey of Amer Lit II 3 s.h.
Score: 62 PR (Percentile)

ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.

⑥ 10/07/86
SB453 Principles of Economics I 3 s.h.
Score: 65 PR (Percentile)

ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.

Ima L. Earning
200-01-0002
Degree Program: A.A.S. in Management

10/07/86
(7) SB454 Principles of Economics II 3 s.h.
Score: 58 PR (Percentile)

....

ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.

....

10/07/86
(8) SA525 Principles of Accounting I 3 s.h.
Score: 60 PR (Percentile)

....

ACE Recommended Passing Score: 20 PR (Percentile)
ACE Recommended Credit: 3 s.h.

....

Dolly S. Rabbit
100-00-1115
Degree Program: A.S. in Computer Science

Military Occupation Specialties (MOS)

① **Computer Systems Operator**
Skill Level: 30
ACE Guide ID Number: MOS-74D-003
Assume acceptable SQT results

Description: **Summary**-Operates electronic computer console and auxiliary equipment. **Skill Level 10**-Performs computer console supporting activities; mounts magnetic disk and tape; operates line printers; keeps a magnetic tape library. **Skill Level 20**-Able to perform the duties required for Skill Level 10; operates a computer system consisting of a central processing unit, magnetic tape units and/or disk storage units in a nonmultiprogramming or non multiprocessing environment. **Skill Level 30**-Able to perform the duties required for Skill Level 20; operates a computer system in multiprogramming and multiprocessing environment; operates a computer system which has remote-inquiry stations and a program-interrupt capability.

……

ACE Recommended Credit: In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 5 semester hours in computer system operations, 3 in introduction to data processing, 3 in file organization and processing, 2 in computer operating systems, and 1 in introduction to systems analysis and design. In the upper-division baccalaureate category, 2 semester hours in computer operations systems and 1 in introduction to systems analysis and design (9/81).

……

Military Course Completions

② **Basic Military Training**
Training Center
Ft. Dix, NJ
Dates: 02/01/80-04/13/80
ACE Guide ID Number: AR-2201-0197

Objectives: To provide training for all enlisted personnel who have had no previous military service.

Instruction: Course teaches discipline, spirit and basic combat skills and includes drills, ceremonies, alcohol and drug abuse, rape prevention, personal health, first aid, personal affairs, basic rifle marksmanship, NBC warfare defense, introduction to individual tactical techniques, U.S. weapons training, marches, bivouacs, tactical training, physical fitness training,

Dolly S. Rabbit
100-00-1115
Degree Program: A.S. in Computer Science

---

reinforcement, and equal opportunity. Those students completing the longer version of this course have included their basic military training through One Station Unit Training (OSUT).

....

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 1 semester hour in outdoor skills practicum, 1 in marksmanship, 1 in personal health, and 1 in personal physical conditioning (9/79).

....

3 **Automatic Data Processing Intern Program**
Management Engineering Training Agency
Rock Island, IL
Dates: 06/01/81-09/12/81
ACE Guide ID Number: AR-1402-0039

Objectives: Course is designed for new programers to provide them with in-depth knowledge and practice in several programming languages, including COBOL, S360 Assembler, and Job Control Language, and in debugging techniques and systems analysis and design concepts.

Instruction: This course covers the fundamentals of computer programming; S360 Assembler Language; JCL for COBOL programmers; COBOL programming, special features, and debugging; JCL and utilities workshop; ADP systems analysis and design; COBOL access methods; and DARCOM orientation. The intern program provides a continuing environment of computing exercises and interaction with the instructors and peers.

....

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 3 semester hours in COBOL (11/76); in the upper-division baccalaureate category, 4 semester hours in S360 Assembler Language, 3 in systems analysis (11/76).

....

4. **Computer/Machine Operator**
Institute of Administration
Ft. Benjamin Harrison, IN
Dates: 03/16/85-04/21/85
ACE Guide ID Number: AR-1402-0055

Objectives: To provide a knowledge of the principles of punched card data processing, to introduce automatic data processing, and to prepare the student for disk operating systems and the operation of a computer system in a multiprogramming environment.

Dolly S. Rabbit
100-00-1115
Degree Program: A.S. in Computer Science

Instruction: Lectures and demonstrations emphasizing hands-on experience with a computer and peripheral equipment.

……

ACE Recommended Credit: In the vocational certificate category, 5 semester hours in computer operator training (2/78).

……

Transfer Credit

Northern Virginia Community College
Annandale, Virginia

Legend: Northern Virginia Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools. It operates on a quarter calendar. Northern Virginia Community College grades on a four-point scale:

A = Excellent, 4 grade points per credit
B = Good, 3 grade points per credit
C = Average, 2 grade points per credit
D = Poor, 1 grade point per credit
F = Failure, 0 grade points

Course numbering system:

001-009: Developmental courses-not applicable toward a degree, certificate or diploma.
010-099: Freshman level courses for the diploma and certificate programs. The credits earned in these courses are not applicable toward an Associate Degree.
100-299: Courses applicable toward an Associate Degree. They may also be used in certificate and diploma courses.

Fall 1987

②	DAPR 138	Computer Systems Arch	03	B	09
②	ENGL 111	English Composition	03	C	06
④	MATH 121	Engin Tech Math I	05	C	15

Dolly S. Rabbit
100-00-1115
Degree Program: A.S. in Computer Science

Catonsville Community College
Catonsville, Maryland

Legend: Catonsville Community College is accredited by the Middle States Association of Colleges and Secondary Schools. It operates on a semester calendar. Catonsville Community College grades on a four-point scale:

A = Excellent Work, 4 quality points
B = Good Work, 3 quality points
C = Satisfactory Work, 2 quality points
D = Poor Work But Passing, 1 quality point

Course numbering system:
001-099: Remedial courses
100-199: Course has no prerequisite or only one prerequisite
200-299: Course has two or more prerequisites

Spring 1988

⑧ CIS 141 Assembly Language Prog 04 B 08

Jacquelyn A. Smith
100-00-1113
Degree Program: A. S. in Criminal Justice

① **Military Occupation Specialties (MOS)**

Military Police
Skill Level: 40
ACE Guide ID Number: MOS-95B-004
Assume acceptable SQT results

Description: Summary-Supervises or provides law enforcement activities, preserves military control, provides security, controls traffic, quells disturbances, protects property and personnel, handles prisoners of war, refugees, or evacuees, and investigates incidents. **Skill level 10**-Enforces traffic regulations and law and order; exercises military control and discipline and guards prisoners of war; responsible for traffic accident investigation; provides physical security for designated individuals, installations, facilities, and equipment; maintains traffic control and enforces traffic regulations and safety; participates in civil disturbances and riot control operations; responsible for law enforcement investigations; performs foot and motorized patrol and applies crime prevention measures; prepares military policy reports, including sworn statements, and processes evidence. **Skill level 20**-Able to perform the duties required for Skill Level 10; leads military police patrol, small squad, and small detachment; supervises compound or work project; coordinates MP activities with civil police organizations; directs MP activities to quell disturbances and cope with disasters; supervises traffic safety activity and riot and crowd control; prepares reports, forms, and records on MP operations and activities. **Skill Level 30**-Able to perform the duties required for Skill Level 20; leads military police squad, medium-sized section, detachment, or platoon; assists in planning, organizing, directing, supervising, training, coordinating, and reporting activities of subordinated; organizes work schedules, assigns duties, and instructs personnel in techniques and procedures; evaluates personnel performance. **Skill Level 40**-Able to perform the duties required for Skill Level 30; leads large military police detachment, section, or platoon; collects offensive and defensive intelligence information and trains personnel in police operations and intelligence activities; assists in coordinating and implementing military police operations, training programs, and communication activities; assists in production and administration of staff journals, files, records, and reports.

Jacquelyn A. Smith
100-00-1113
Degree Program: A. S. in Criminal Justice

....

ACE Recommended Credit: In the lower division Baccalaureate/associate degree category, 3 semester hours in patrol operations, 3 in police supervision, 3 in a law enforcement elective, and 3 in office records management. In the upper-division baccalaureate category, 3 semester hours in principles of management (11/86).

....

Military Course Completions

② **Basic Military Training**
Training Center
Ft. Gordon, GA
Dates: 02/01/80-04/13/80
ACE Guide ID Number: AR-2201-0197

Objectives: To provide training for all enlisted personnel who have had no previous military service.

Instruction: Course teaches discipline, spirit and basic combat skills and includes drills, ceremonies, alcohol and drug abuse, rape prevention, personal health, first aid, personal affairs, basic rifle marksmanship, NBC warfare defense, introduction to individual tactical techniques, U.S. weapons training, marches, bivouacs, tactical training, physical fitness training, reinforcement, and equal opportunity. Those students completing the longer version of this course have included their basic military training through One Station Unit Training (OSUT).

....

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 1 semester hour in outdoor skills practicum, 1 in marksmanship, 1 in personal health, and 1 in personal physical conditioning (9/79).

....

③ **Basic Military Police**
Military Police School
Ft. McClellan, AL
Dates: 06/01/80-07/24/80
ACE Guide ID Number: AR-1728-0023

Objectives: To train the soldier to become disciplined, highly motivated, and capable of performing the duties of an entry-level military policeman to include: law enforcement and nuclear physical security skills.

Jacquelyn A. Smith
100-00-1113
Degree Program: A. S. in Criminal Justice

Instruction: Internal defense and internal development; unarmed defense; driver training; weapons; first aid; military law; vice control; MP communications; civil disturbances; police intelligence; traffic control; prisoners of war; physical security; apprehension and search; criminal investigations; public relations; observation, description and identification.

……

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal justice (11/73); in the upper-division baccalaureate category, 3 semester hours in criminal justice (11/73).

……

④ **Criminal Investigation**
Military Police School
Ft. McClellan, AL
Dates: 7/30/80-9/26/80
ACE Guide ID Number: AR-1728-0010

Objectives: To qualify enlisted personnel and warrant officers for criminal investigation duty in field units of the Army Criminal Investigation Command.

Instruction: Operation and administration of criminal investigation units; methods and techniques of investigation; crime scene investigation; collection, evaluation and preservation of evidence; death investigation; investigation of crimes against people; investigation of crimes against property; capabilities and limitations of scientific analysis of evidence; investigative photography; fingerprinting and report writing and testifying in court; fraud and waste investigations and drugs.

……

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 12 semester hours in criminal justice (11/73); in the upper-division baccalaureate category, 9 semester hours in criminal justice (11/73).

……

Jacquelyn A. Smith
100-00-1113
Degree Program: A. S. in Criminal Justice

⑤ **Polygraph Examiner Training**
Military Police School
Ft. McClellan, AL
Dates: 01/01/81-04/12/81
ACE Guide ID Number: AR-1728-0008

Objectives: To qualify military and federal civilian investigative/intelligence personnel as polygraph examiners.

Instruction: Polygraph theory and maintenance management; mental and physical evaluation of examinee; polygraph instrumentation and examination; post-test procedures, practical exercises in zone comparison, peak of tension, and general question techniques.

……

ACE Recommended Credit: In the upper-division baccalaureate category, 12 semester hours in criminal justice (11/73); in the graduate degree category, 6 semester hours in criminal justice or forensic science elective (5/77).

……

Transfer Credit

Northern Virginia Community College
Annandale, Virginia

Legend: Northern Virginia Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools. It operates on a quarter calendar. Northern Virginia Community College grades on a four-point scale:

A = Excellent, 4 grade points per credit
B = Good, 3 grade points per credit
C = Average, 2 grade points per credit
D = Poor, 1 grade point per credit
F = Failure, 0 grade points

Course numbering system:
001-009: Developmental courses-not applicable toward a degree, certificate or diploma.
010-099: Freshman level courses for the diploma and certificate programs. The credits earned in these courses are not applicable toward an Associate Degree.
100-299: Courses applicable toward an Associate Degree. They may also be used in certificate and diploma courses.

Jacquelyn A. Smith
100-00-1113
Degree Program: A. S. in Criminal Justice

Fall 1984

⑥	ADJU 100	Introductn to Law Enf	03	B	09
⑦	PSYC 100	Prin of Applied Psych	03	A	12

Northern Arizona University
Flagstaff, Arizona

Legend: Northern Arizona University is accredited by the North Central Association of Colleges and Schools. It operates on a semester calendar. Northern Arizona University grades on a four-point scale: A = highest, 4 points
B = above average, 3 points
C = average, 2 points
D = lowest passing, 1 point
F = failure, 0 points

Course numbering system:
100-299: Lower division courses primarily for freshmen and sophomores
300-499: Upper division courses primarily for juniors and seniors
500-599: Graduate courses open to graduate students and qualified seniors
600-699: Graduate courses open to students admitted to graduate study
700-799: Advanced graduate courses usually of a professional nature

---

Fall 1984

⑧	ENG 101	English Composition	03	B	12
⑨	MAT 110	College Algebra	03	B	12
⑩	BIO 104	Plant Biology	04	C	08
⑪	SOC 150	Intro to Sociology	03	A	12
⑫	ANT 101	Studying Cultures	03	A	12

Spring 1985

⑬	ENG 102	English Composition	03	A	12
⑭	CHM 130	Fundamental Chemistry I	04	C	08
⑮	PHI 101	Intro to Philosophy	03	D	09
⑯	PSY 150	Intro to Psychology	03	A	12
⑰	TH 101	Intro to the Theatre	03	B	09

Jacquelyn A. Smith
100-00-1113
Degree Program: A. S. in Criminal Justice

Fall 1985

⑱	HUM	201	Approaches to Humanities	03	B	09
⑲	ENG	214	Intro to American Lit	03	A	12
⑳	JLS	200	Mass Media and Society	03	B	09
㉑	HIS	291	U.S. History to 1865	03	B	09
㉒	SC	206	Nonverbal Comunication	03	A	12

Roger W. Rabbit
100-00-1114
Degree Program: A.A.S. in Computer Technology

Military Occupation Specialties (MOS)

(1) **Computer Systems Operator**
Skill Level: 30
ACE Guide ID Number: MOS-74D-003
Assume acceptable SQT results

Description: **Summary**-Operates electronic computer console and auxiliary equipment. **Skill Level 10**-Performs computer console supporting activities; mounts magnetic disk and tape; operates line printers; keeps a magnetic tape library. **Skill Level 20**-Able to perform the duties required for Skill Level 10; operates a computer system consisting of a central processing unit, magnetic tape units and/or disk storage units in a nonmultiprogramming or non multiprocessing environment. **Skill Level 30**-Able to perform the duties required for Skill Level 20; operates a computer system in multiprogramming and multiprocessing environment; operates a computer system which has remote-inquiry stations and a program-interrupt capability.

....

ACE Recommended Credit: In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 5 semester hours in computer system operations, 3 in introduction to data processing, 3 in file organization and processing, 2 in computer operating systems, and 1 in introduction to systems analysis and design. In the upper-division baccalaureate category, 2 semester hours in computer operations systems and 1 in introduction to systems analysis and design (9/81).

....

Military Course Completions

(2) **Basic Military Training**
Training Center
Ft. Dix, NJ
Dates: 02/01/80-04/13/80
ACE Guide ID Number: AR-2201-0197

Objectives: To provide training for all enlisted personnel who have had no previous military service.

Instruction: Course teaches discipline, spirit and basic combat skills and includes drills, ceremonies, alcohol and drug abuse, rape prevention, personal health, first aid, personal affairs, basic rifle marksmanship, NBC warfare defense, introduction to individual tactical techniques, U.S. weapons training, marches, bivouacs, tactical training, physical fitness training,

reinforcement, and equal opportunity. Those students completing the longer version of this course have included their basic military training through One Station Unit Training (OSUT).

....

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 1 semester hour in outdoor skills practicum, 1 in marksmanship, 1 in personal health, and 1 in personal physical conditioning (9/79).

....

(3) **Automatic Data Processing Intern Program**
Management Engineering Training Agency
Rock Island, IL
Dates: 06/01/81-09/12/81
ACE Guide ID Number: AR-1402-0039

Objectives: Course is designed for new programers to provide them with in-depth knowledge and practice in several programming languages, including COBOL, S360 Assembler, and Job Control Language, and in debugging techniques and systems analysis and design concepts.

Instruction: This course covers the fundamentals of computer programming; S360 Assembler Language; JCL for COBOL programmers; COBOL programming, special features, and debugging; JCL and utilities workshop; ADP systems analysis and design; COBOL access methods; and DARCOM orientation. The intern program provides a continuing environment of computing exercises and interaction with the instructors and peers.

....

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 3 semester hours in COBOL (11/76); in the upper-division baccalaureate category, 4 semester hours in S360 Assembler Language, 3 in systems analysis (11/76).

....

(4) **Computer/Machine Operator**
Institute of Administration
Ft. Benjamin Harrison, IN
Dates: 03/16/85-04/21/85
ACE Guide ID Number: AR-1402-0055

Objectives: To provide a knowledge of the principles of punched card data processing, to introduce automatic data processing, and to prepare the student for disk operating systems and the operation of a computer system in a multiprogramming environment.

Roger W. Rabbit
100-00-1114
Degree Program: A.A.S. in Computer Technology

Instruction: Lectures and demonstrations emphasizing hands-on experience with a computer and peripheral equipment.

……

ACE Recommended Credit: In the vocational certificate category, 5 semester hours in computer operator training (2/78).

……

Transfer Credit

Northern Virginia Community College
Annandale, Virginia

Legend: Northern Virginia Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools. It operates on a quarter calendar. Northern Virginia Community College grades on a four-point scale:

A = Excellent, 4 grade points per credit
B = Good, 3 grade points per credit
C = Average, 2 grade points per credit
D = Poor, 1 grade point per credit
F = Failure, 0 grade points

Course numbering system:

001-009: Developmental courses-not applicable toward a degree, certificate or diploma.
010-099: Freshman level courses for the diploma and certificate programs. The credits earned in these courses are not applicable toward an Associate Degree.
100-299: Courses applicable toward an Associate Degree. They may also be used in certificate and diploma courses.

Fall 1987

⑤	DAPR	138	Computer Systems Arch	03	B	09
④	ENGL	111	English Composition	03	C	06
⑦	MATH	121	Engin Tech Math I	05	C	15

Roger W. Rabbit
100-00-1114
Degree Program: A.A.S. in Computer Technology

Catonsville Community College
Catonsville, Maryland

Legend: Catonsville Community College is accredited by the Middle States Association of Colleges and Secondary Schools. It operates on a semester calendar. Catonsville Community College grades on a four-point scale:

A = Excellent Work, 4 quality points
B = Good Work, 3 quality points
C = Satisfactory Work, 2 quality points
D = Poor Work But Passing, 1 quality point

Course numbering system:
001-099: Remedial courses
100-199: Course has no prerequisite or only one prerequisite
200-299: Course has two or more prerequisites

Spring 1988

③ CIS 141 Assembly Language Prog 04 B 08

Name of Student: John A. Student
716-01-0000

Intended Major: Electronics Technology, AAS

Prior Learning Experiences

Military Occupational Specialties

① Station Technical Controller
Skill Level 10
ACE Guide ID Number: MOS-32D-002
Assume Acceptable SQT Results

Description: Summary - Performs operational tests on circuits, channels, and equipment to ensure high quality operation and maximum efficiency; uses communications test equipment, including signal generators, meters, distortion analyzers, oscilloscopes, and voltmeters; determines overall circuit conditions from test results; directs radio frequency changes.

……

ACE Recommended Credit: In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in basic electronic communications, and 3 in circuit analysis 10/81).

……

Military Course Completions

② Basic Military Training
Fort Benning, Georgia
Dates: 1/7/80-3/4/80
ACE Guide ID Number: AR-2201-0197

……

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 1 semester hour in outdoor skills practicum, 1 in marksmanship, 1 in personal health, and 1 in personal physical conditioning (9/79).

……

③ Station Technical Controller
Signal School
Fort Gordon, Georgia
Dates: 3/2/80-8/4/80
ACE ID Number: AR-1715-0135

……

ACE Recommended Credit: Version 2: In the vocational certificate category, 2 semester hours in digital circuitry, 1 in basic electronics communications (8/79); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics (8/79).

……

DANTES Subject Standardized Tests (DSST)

④ 4/11/83
SA440 Calculus I 4 s.h.
Score: PR (Percentile) 50

……

ACE Recommended Passing Score: PR (Percentile) 20
ACE Recommended Credit: 4 s.h.

Transfer Credit

Montgomery College
Rockville, Maryland

Legend: Montgomery College is accredited by the Middle States Association of Colleges and Secondary Schools to offer the Associate in Arts degree. It operates on a semester calendar. Montgomery College grades on a four point scale:

A = Excellent, 4.0 points for each credit hour
B = Good, 3.0 points for each credit hour
C = Average, 2.0 points for each credit hour
D = Pass without recommendation, 1.0 points for each credit hour
F = Failure, no points

Courses with hyphenated numbers are sequential and must be taken in order listed. Separation of numbers by a comma indicates that the courses may be taken in reverse order. The letters CE following the course title indicates that credit for the course may be obtained by taking an examination. The letters G, R and/or FP indicate the campus offering the examination.

……

Fall 1984

⑤	ET 234	Electronic Technology Drafting	02	A	8
⑥	GE 101	Introduction to Geography	03	B	9

Name of Student: Mary Jones
400-26-0110

Intended Major: Nursing, AS

Prior Learning Experiences

Military Occupational Specialties

① Hospitalman
Skill Level: E4
ACE Guide ID Number: NER-HN-001

Assume occupational proficiency has been demonstrated

Description: Performs basic nursing care; applies bandages, splints, and dressings; takes and record vital signs; collects specimens; under direction, administers medication; identifies the basic elements and functions of the circulatory, respiratory, digestive, urogenital, musculoskeletal, and nervous systems, keeps medical department equipment and spaces clean and sanitary; performs routine clerical duties of the ward.

……

ACE Recommended Credit: In the vocational certificate category, the training is equivalent to a one-year practical nursing program, including basic knowledge in the following areas: nursing techniques and clinical applications, basic anatomy and physiology, pharmacology, and medical terminology. In the lower-division baccalaureate/associate degree category, 2 semester hours in health and hygiene, 3 in nursing techniques, 4-5 in clinical nursing, 2 in emergency medical techniques, 1 in medical terminology, and credit in anatomy and physiology on the basis of institutional evaluation (12/81). NOTE: Credit for Hospitalman (HN) should be granted only after pay grade E-3 has been achieved.

……

Military Course Completions

② Basic Military Training
Recruit Training Command
Orlando, Florida
Dates: 05/15/80-7/15/80
ACE Guide ID Number: NV-2202-0014

……

ACE Recommended Credit: In the lower-division baccalaureate/associate degree category, 1 semester hour in personal fitness/conditioning, 1 in personal/community health, 2 in first aid and safety.

……

③ Hospital Corpsman, Basic
Hospital Corps School
Great Lakes, Illinois
Dates: 8/15/80-11/30/80
ACE Guide ID Number: NV-0703-0005

……

ACE Recommended Credit: In the vocational certificate category, 2 semester hours in anatomy and physiology, 6 in patient care procedures, 3 in emergency care and 1 in drug therapy (6/83).

……

DANTES Subject Standardized Tests (DSST)

④ 5/11/85
SA562 Principles of Guidance 3 s.h.
Score: PR (Percentile) 42

……

ACE Recommended Passing Score PR (Percentile) 20
ACE Recommended Credit: 3 s.h.

……

⑤ 5/12/86
SA 494 General Anthropology 3 s.h.
Score: 38

……

ACE Recommended Passing Score: 20th Percentile
ACE Recommended Credit: 3 s.h.

……

American College Testing Program Proficiency Examination Program (ACT-PEP)

⑥ 6/12/87
424 Commonalities in Nursing Care: Area 1 3 Hr Exam
Standard Score: 65

……

ACE Recommended Passing Score: 45 Standard Score
ACE Recommended Credit: 8 s.h. Baccalaureate/Associate Level

……

Transfer Credit

Ocean County College

Legend: Ocean County College is accredited by the Middle States Association of Colleges and Secondary Schools to offer the Associate in Arts degree, the Associate in Science degree, and the Associate of Applied Science degree. It operates on a semester calendar. Ocean County College grades on a four point scale:

A = Excellent, 4.0 points for each credit hour
B = Very Good, 3.0 points for each credit hour
C+ = Above average, 2.5 points for each credit hour
D = Passing, 2.0 points for each credit hour
Below average, 1.0 point for each credit hour
F = Failing, no points

Service courses numbered from 001 to 009 do not carry college credit. Courses numbered from 100 to 199 are first-year level courses for associate and/or transfer programs. Courses numbered from 200 to 299 are second-year level courses for associate and/or transfer programs. Courses numbered from 900 to 999 are service courses given in adult education and community service programs. Not for degree credit.

……

Fall 1978

⑦ SS172 General Psychology 03 B09

……

City College of San Francisco

Legend: The entire program offered by the City College of San Francisco is accredited by the Western Association of Schools and Colleges to offer the Associate in Arts and Associate in Science degrees. It operates on a semester calendar. The City College of San Francisco grades on a four point scale:

A = Excellent, 4.0 points for each credit hour
B = Good, 3.0 points for each credit hour
C = Satisfactory, 2.0 points for each credit hour
D = Passing, less than satisfactory
F = Failing, no points

Courses numbered 1 through 799 are university courses. These courses are considered to be baccalaureate in nature and carry credit. Courses numbered only with the letters from A through Z are foundational courses; for example, English K. Credit earned in these courses is generally not transferable.

....

Fall 1986

⑧ PN 50A Pharmacology in Nursing 03 A 12
⑦ PH1 8 Philosophies of Religion 03 B 09